Congratulations, you and your MacBook were made for each other.

Say hello to your MacBook.

www.apple.com/macbook

Built-in iSight camera and iChat

Video chat with friends and family anywhere in the world.

Mac Help

isight

Finder

Browse your files like you browse your music with Cover Flow.

Mac Help

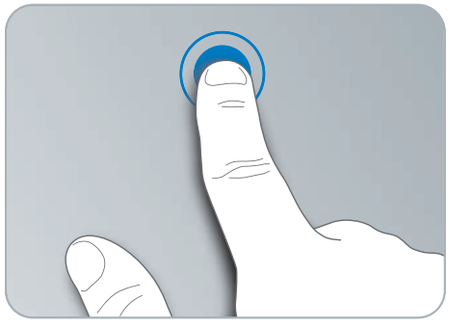
finder

Multi-Touch trackpad

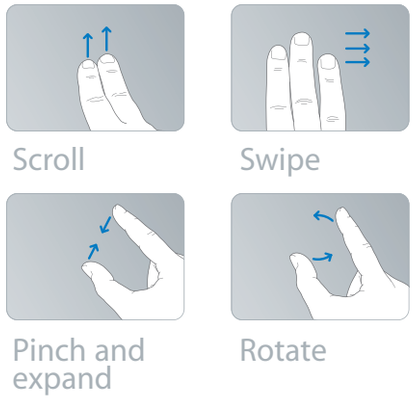
Scroll through files, adjust images, and enlarge text using just your fingers.

Mac Help

trackpad



Click anywhere



Scroll

Swipe

Pinch and expand

Rotate

Mac OS X Leopard

www.apple.com/macosx

Time Machine

Automatically back up and restore your files.

Mac Help

time machine

Quick Look

Instantly preview your files.

Mac Help

quick look

Spotlight

Find anything on your Mac instantly.

Mac Help

spotlight

Safari

Experience the web with the fastest browser in the world.

Mac Help

safari

iLife ’08

www.apple.com/ilife

iPhoto

Share photos on the web or create books, cards, and calendars.

iPhoto Help

photos

iMovie

Make a movie and share it on the web with ease.

iMovie Help

movie

GarageBand

Create your own song with musicians on a virtual stage.

GarageBand Help

record

iWeb

Build websites with photos, movies, blogs, and podcasts.

iWeb Help

website

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Looking for Something?

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1

Ready, Set Up, Go

www.apple.com/macbook

Mac Help Migration Assistant

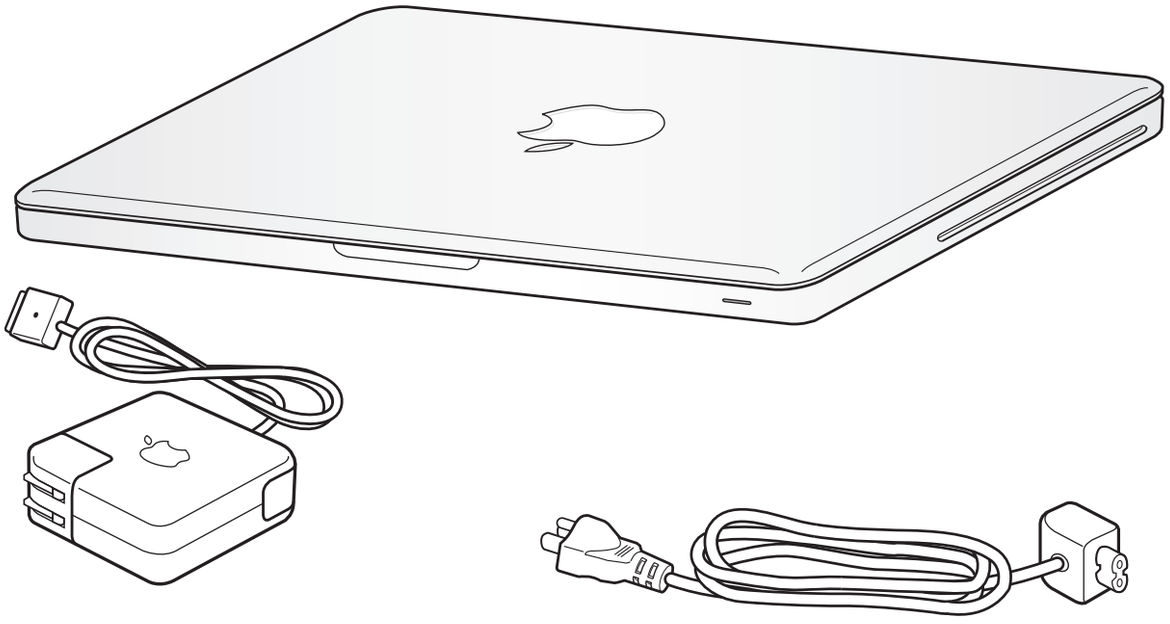
Your MacBook is designed so that you can set it up quickly and start using it right away. If you have never used a MacBook or are new to Macintosh computers, read this chapter for help getting started.

Important: Read all the installation instructions (and the safety information starting on page 67) carefully before you first use your computer.

If you are an experienced user, you may already know enough to get started. Make sure you look over the information in Chapter 2, "Life with Your MacBook," to find out about the new features of this MacBook.

Many answers to questions can be found on your computer in Mac Help. For information about getting Mac Help, see "Getting Answers" on page 29. Apple may release new versions and updates to its system software, so the images shown in this book may be slightly different from what you see onscreen.

What's in the Box



60W MagSafe Power Adapter

AC power cord

Setting Up Your MacBook

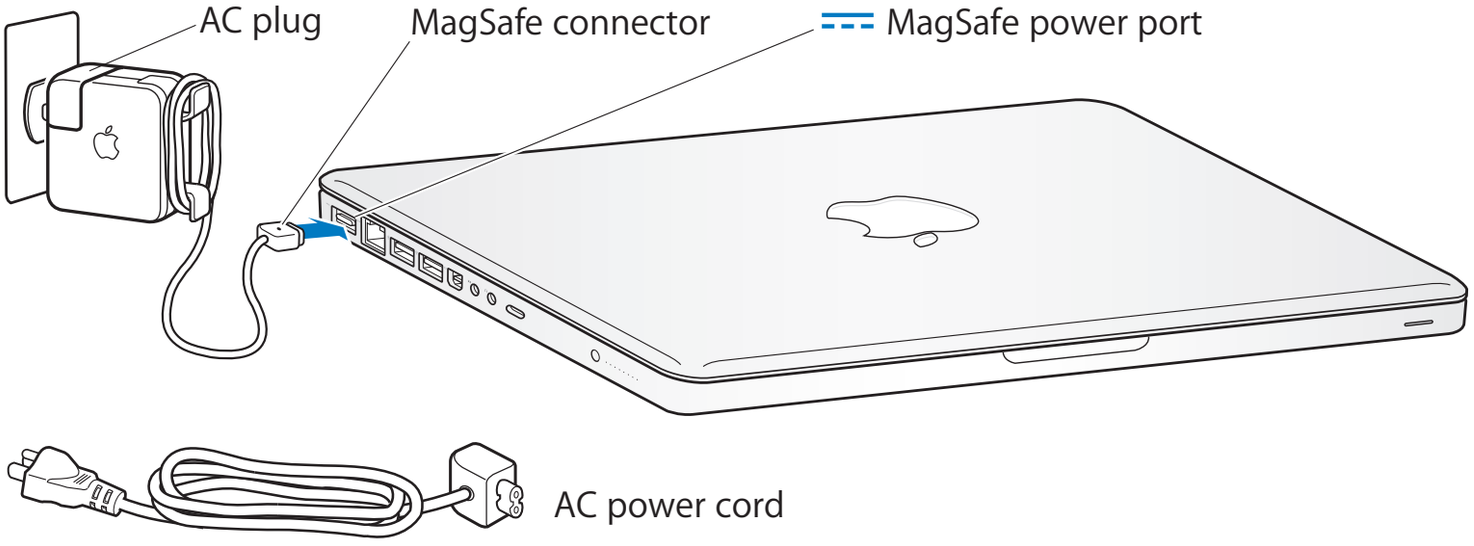
Your MacBook is designed so that you can set it up quickly and start using it right away. The following pages take you through the setup process, including these tasks:

- Plugging in the 60W MagSafe Power Adapter
- Connecting cables and accessing a network
- Turning on your MacBook and using the trackpad
- Configuring a user account and other settings using Setup Assistant
- Setting up the Mac OS X desktop and preferences

Important: Remove the protective film around the 60W MagSafe Power Adapter before setting up your MacBook.

Step 1: Plug in the 60W MagSafe Power Adapter to provide power to the MacBook and charge the battery.

Make sure the AC plug is fully inserted into the power adapter and the electrical prongs on your AC plug are in their completely extended position. Insert the AC plug of your power adapter into a power outlet and the MagSafe connector into the MagSafe power port. As the MagSafe connector gets close to the port, you'll feel a magnetic pull drawing it in.



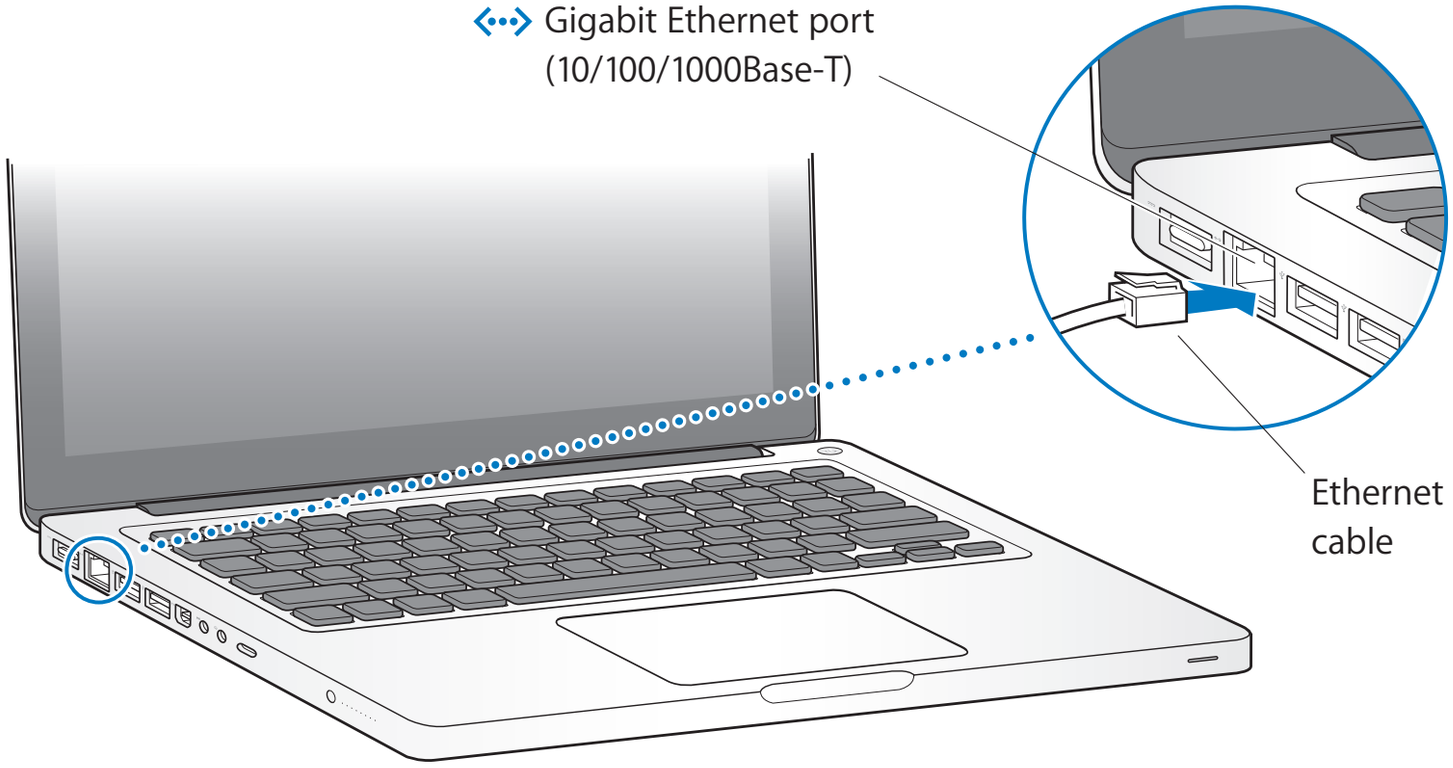
To extend the reach of your power adapter, replace the AC plug with the AC power cord. First pull the AC plug up to remove it from the adapter, and then attach the included AC power cord to the adapter, making sure it is seated firmly.

When disconnecting the power adapter from an outlet or from the computer, pull the plug, not the cord.

Note: When you first connect the power adapter to your MacBook, an indicator light on the MagSafe connector starts to glow. An amber light indicates that the battery is charging. A green light indicates that the battery is fully charged. If you don't see a light, make sure the connector is seated properly and the power adapter is plugged in.

Step 2: Connect to a wireless or wired network.

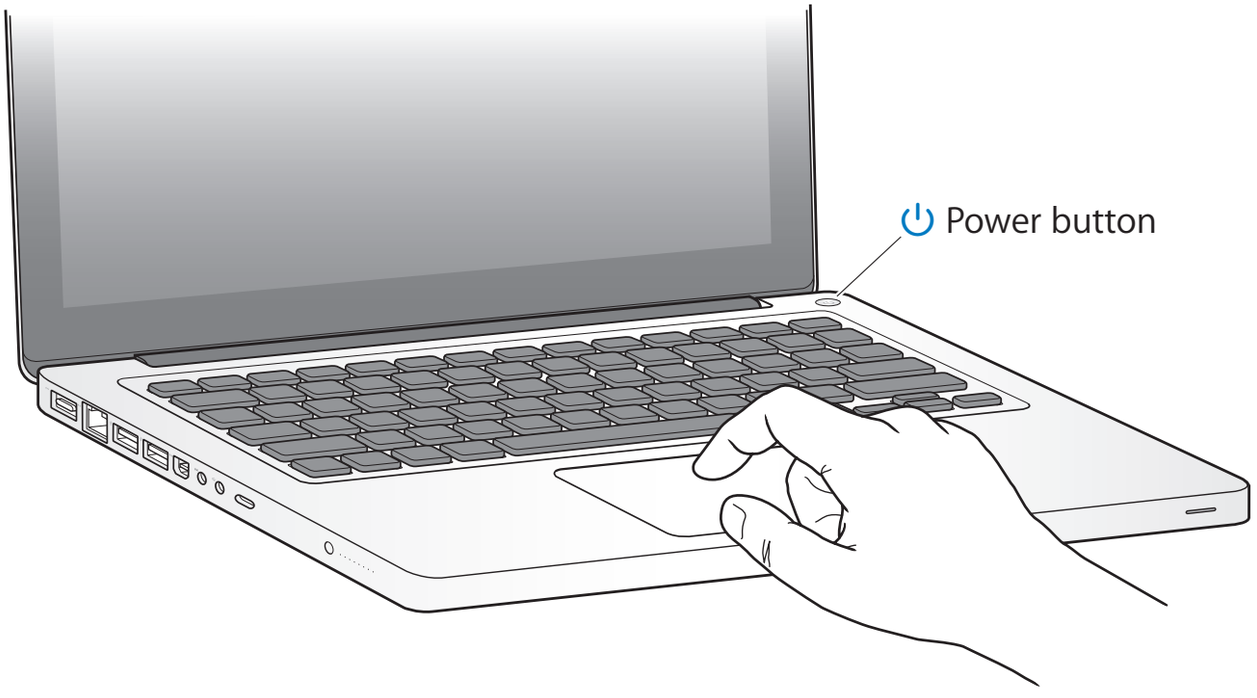
- To use a wireless network with the built-in AirPort Extreme technology, make sure the wireless base station is turned on and that you know the name of the network. After you turn on your MacBook, Setup Assistant guides you through the connection process. For troubleshooting tips, see page 60.
- To use a wired connection, connect one end of an Ethernet cable to your MacBook and the other end to a cable modem, DSL modem, or network.



- To use a dial-up connection, you need the external Apple USB Modem, available from the online Apple Store at www.apple.com/store or from an Apple Authorized Reseller. Plug the Apple USB Modem into a USB port on your MacBook, and then connect a phone cord (not included) from the modem into a phone wall jack.

Step 3: Press the power (⏻) button briefly to turn on your MacBook.

You hear a tone when you turn on the computer.



It takes the computer a few moments to start up. After it starts up, Setup Assistant opens automatically.

If your computer doesn't turn on, see "If your MacBook doesn't turn on or start up" on page 54.

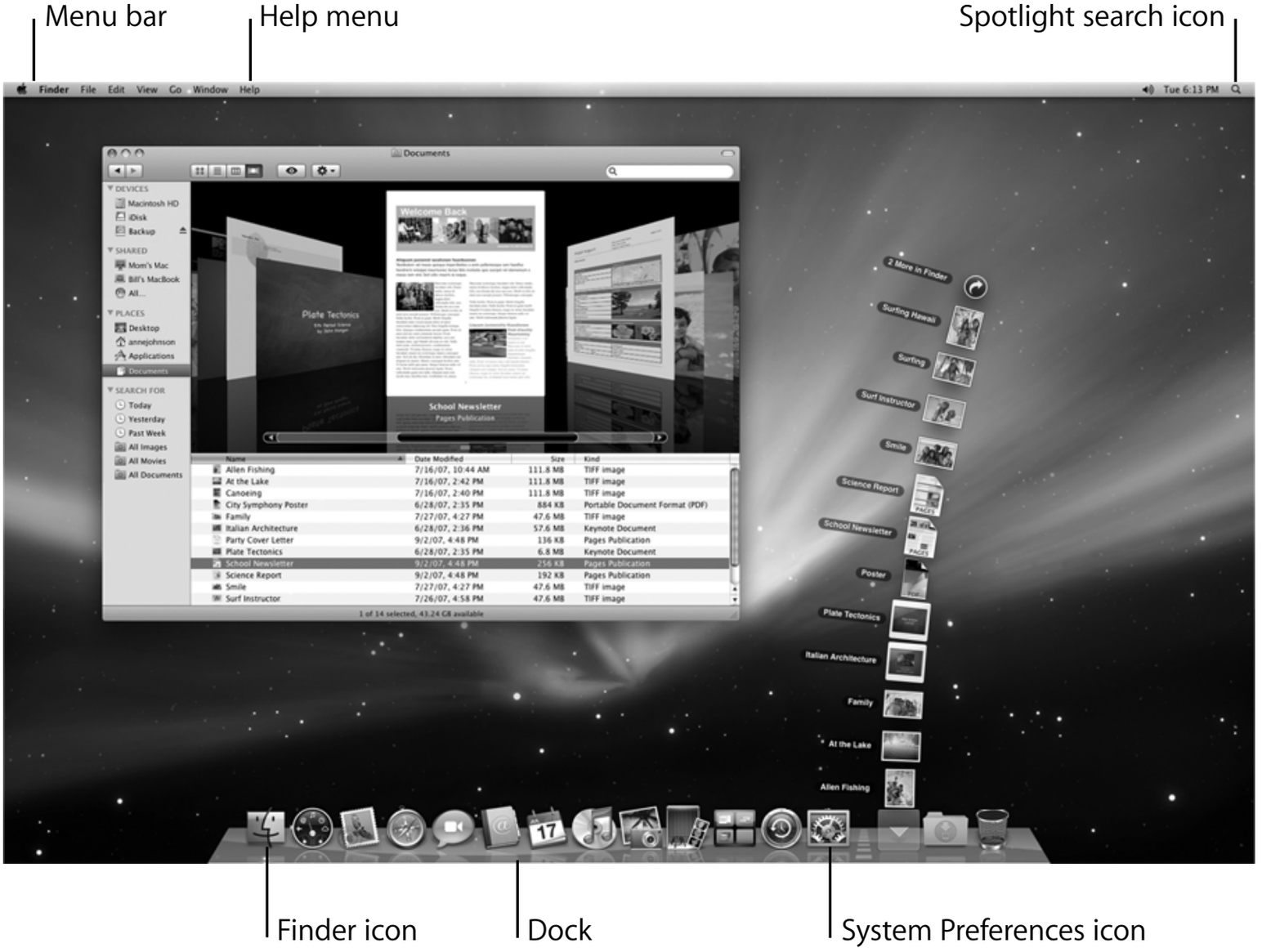
Step 4: Configure your MacBook with Setup Assistant.

The first time you turn on your MacBook, Setup Assistant starts. Setup Assistant helps you enter your Internet and email information and set up a user account on your MacBook. If you already have a Mac, Setup Assistant can help you automatically transfer files, applications, and other information from your previous Mac using an Ethernet or a wireless connection.

If you don't intend to keep or use your other Mac, it's best to deauthorize it from playing music, videos, or audiobooks that you've purchased from the iTunes Store. Deauthorizing a computer prevents any songs, videos, or audiobooks you've purchased from being played by someone else and frees up another authorization for use. For information about deauthorizing, in iTunes, open Help > iTunes Help.

If you don't use Setup Assistant to transfer information when you first start up, you can do it later using Migration Assistant. Go to the Applications folder, open Utilities, and double-click Migration Assistant.

Step 5: Customize the Mac OS X desktop and set preferences.



You can quickly customize the desktop using System Preferences. Choose Apple (🍎) > System Preferences from the menu bar or click the System Preferences icon in the Dock. System Preferences is your command center for most settings on your MacBook. For more information, open Mac Help and search for "System Preferences" or for the specific preference you want to change.

Putting Your MacBook to Sleep or Shutting It Down

When you finish working with your MacBook, you can put it to sleep or shut it down.

Putting Your MacBook to Sleep

If you'll be away from your MacBook for only a short time, put it to sleep. When the computer is in sleep, you can quickly wake it and bypass the startup process.

To put your MacBook to sleep, do one of the following:

- Close the display.
- Choose Apple (🍎) > Sleep from the menu bar.
- Press the power (⏻) button and click Sleep in the dialog that appears.
- Choose Apple (🍎) > System Preferences, click Energy Saver, and set a sleep timer.

NOTICE: Wait a few seconds until the sleep indicator light starts pulsing (indicating that the computer is in sleep and the hard disk has stopped spinning) before you move your MacBook. Moving your computer while the hard disk is spinning can damage it, causing loss of data or the inability to start up from the hard disk.

To wake your MacBook:

- *If the display is closed,* simply open it to wake your MacBook.
- *If the display is already open,* press the power (⏻) button or any key on the keyboard.

When your MacBook wakes from sleep, your applications, documents, and computer settings are exactly as you left them.

Shutting Down Your MacBook

If you aren't going to use your MacBook for a couple of days or longer, it's best to shut it down. The sleep indicator light goes on briefly during the shutdown process.

To shut down your MacBook, do one of the following:

- Choose Apple (🍎) > Shut Down from the menu bar.
- Press the power (⏻) button and click Shut Down in the dialog that appears.

If you plan to store your MacBook for an extended period of time, see "Important Handling Information" on page 71 for information about how to prevent your battery from draining completely.

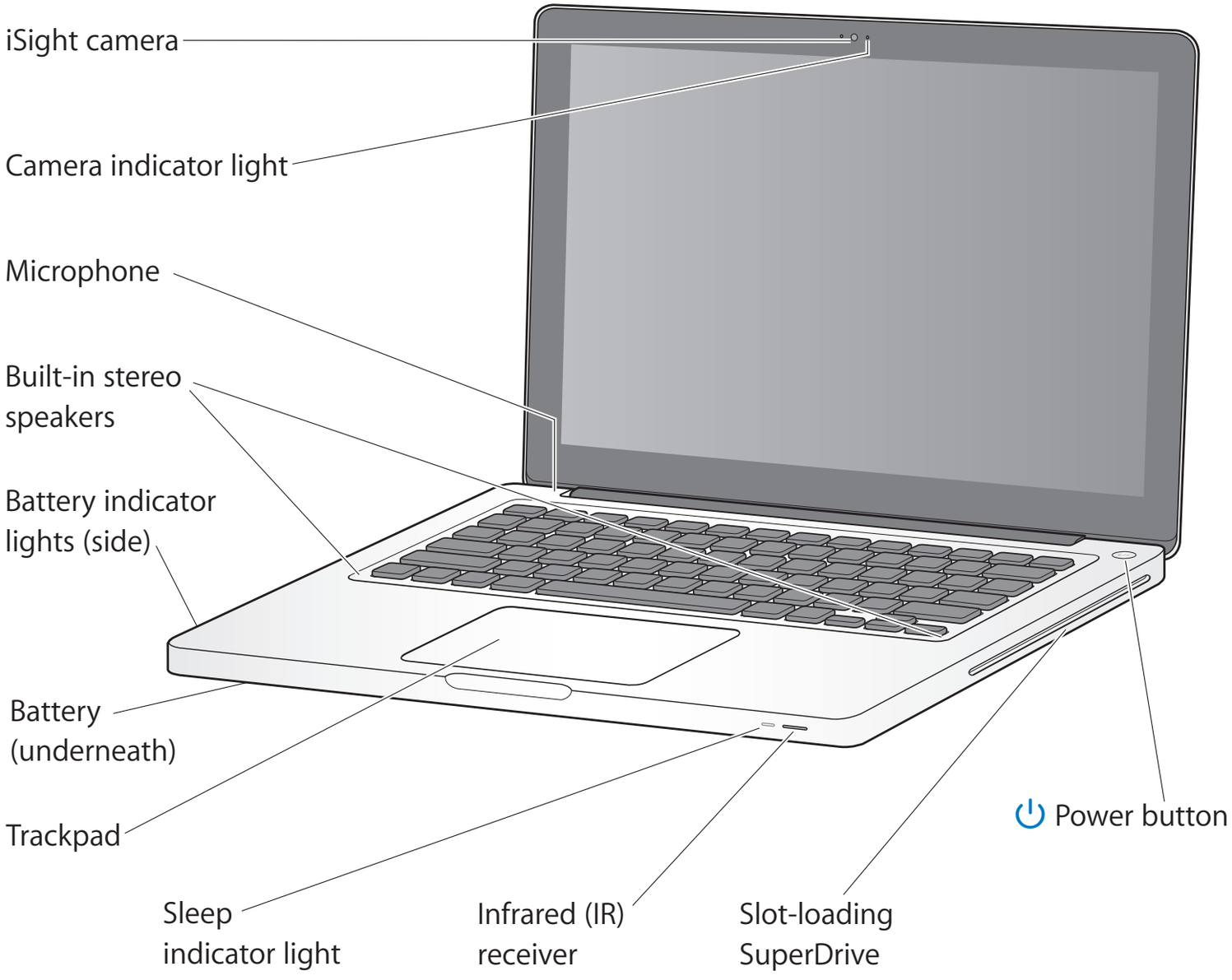
2

Life with Your MacBook

www.apple.com/macosx

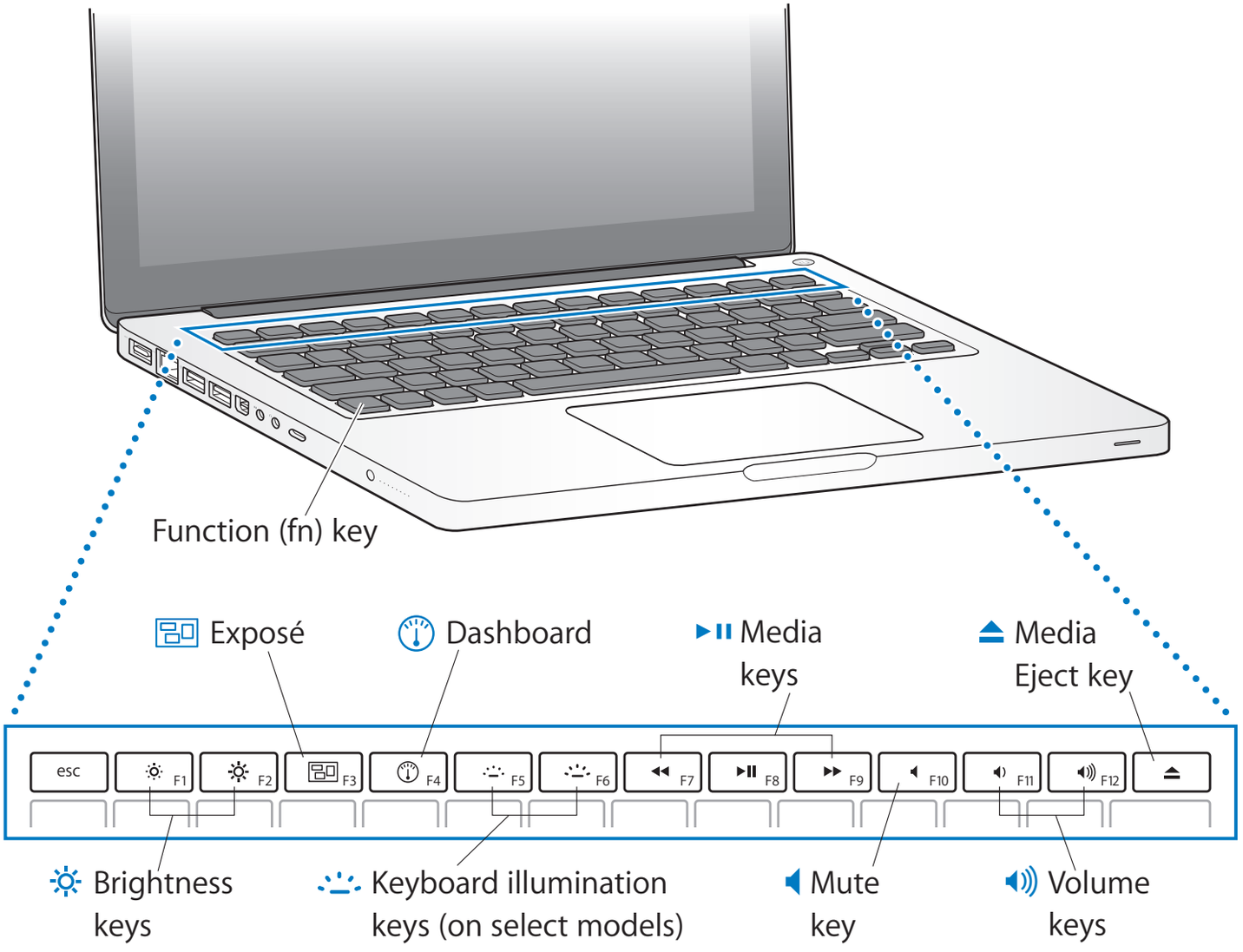
Mac Help Mac OS X

Basic Features of Your MacBook



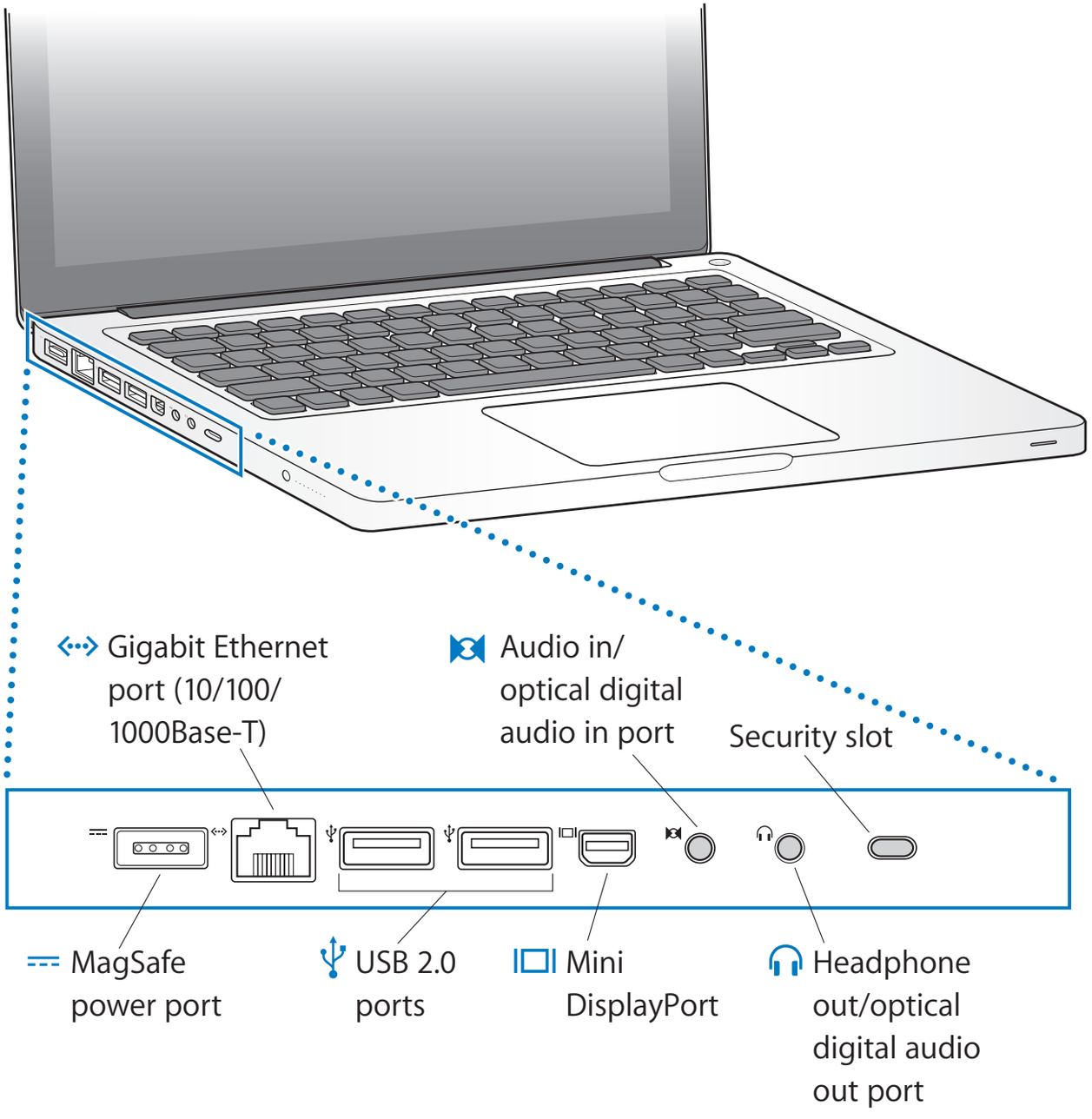
	Built-in iSight camera and camera indicator light Videoconference with others using iChat, take pictures with Photo Booth, or capture video with iMovie. The indicator light glows when the iSight camera is operating.
	Built-in microphone Capture sounds with the microphone (located above the Esc key on your keyboard) or talk with friends live over broadband using the included iChat application.
	Built-in stereo speakers Listen to music, movies, games, and multimedia files.
	Battery and battery indicator lights Use battery power when you're away from a power outlet. Press the battery button to activate indicator lights that show the remaining battery charge.
	Trackpad Click or double-click anywhere on the trackpad. Touch the trackpad with one or more fingers to move the pointer and use Multi-Touch gestures (described on page 24).
	Sleep indicator light A white light pulses when the MacBook is in sleep.
	Infrared (IR) receiver Use an optional Apple Remote (available separately) with the IR receiver to control Front Row and Keynote on your MacBook from up to 30 feet (9.1 meters) away.
	Slot-loading optical drive This optical drive reads and writes to standard-size CDs and DVDs.
⏻	**Power button** Turn your MacBook on or off, or put it to sleep.

Keyboard Features of Your MacBook



	Function (fn) key Hold down this key to activate customized actions assigned to the function keys (F1 to F12). To learn how to customize function keys, choose Help > Mac Help from the menu bar and search for "function keys."
	Brightness keys (F1, F2) Increase (☼) or decrease (☼) the brightness of the screen.
	Exposé All Windows key (F3) Open Exposé for quick access to all your open windows.
	Dashboard key (F4) Open Dashboard to access your widgets.
	Keyboard illumination keys (F5, F6) Increase (☼) or decrease (☼) the brightness of the keyboard illumination. Available on select models.
▶II	**Media keys (F7, F8, F9)** Rewind (⏮), play or pause (▶II), or fast-forward (⏭) a song, movie, or slideshow.
	Mute key (F10) Mute the sound coming from the built-in speakers and headphone port.
	Volume keys (F11, F12) Increase (🔊) or decrease (🔉) the volume of the sound coming from the built-in speakers or headphone port.
⏏	**Media Eject key** Hold down this key to eject a disc that's not in use. You can also eject a disc by dragging its desktop icon to the Trash.

Ports on Your MacBook



⎓	**MagSafe power port** Plug in the included 60W MagSafe Power Adapter to recharge the MacBook battery.
⇠•••⇢	**Gigabit Ethernet port (10/100/1000Base-T)** Connect to a high-speed Ethernet network, a DSL or cable modem, or another computer. The Ethernet port automatically detects Ethernet devices and doesn't require an Ethernet crossover cable.
⇵	**Two USB (Universal Serial Bus) 2.0 ports** Connect an iPod, iPhone, mouse, keyboard, printer, digital camera, modem, and more to your MacBook. You can connect one high-powered external USB device. You can also connect USB 1.1 devices.
▭	**Mini DisplayPort (video out)** Connect to an external display or projection system that uses a DVI or VGA connector. You can purchase adapters for supported video formats.
⋈	**Audio in/optical digital audio in port** Connect your MacBook to a line-level microphone or digital audio equipment.
🎧	**Headphone out/optical digital audio out port** Connect external speakers, headphones (including iPhone), or digital audio equipment.
	Security slot Attach a lock and cable (available separately) to prevent theft.

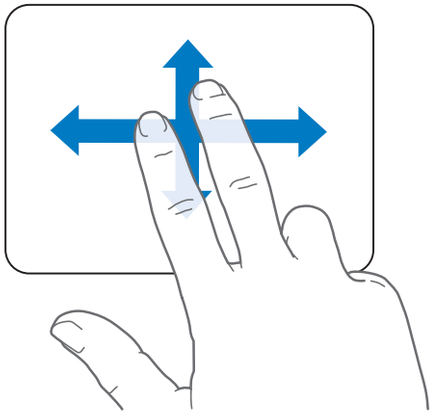
Note: Adapters and other accessories are sold separately at www.apple.com/store.

Using the Multi-Touch Trackpad

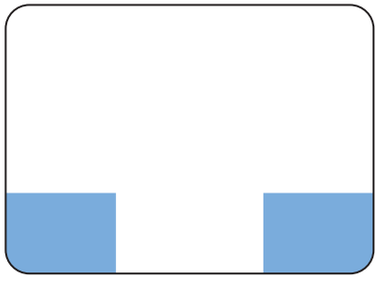
Use the trackpad to move the cursor and to perform a variety of Multi-Touch gestures. Unlike typical trackpads, the entire MacBook trackpad is a button, and you can click anywhere on the trackpad. To enable gestures and set other trackpad options, choose Apple (🍎) > System Preferences, and then click Trackpad.

Here are ways to use your MacBook trackpad:

- *Two-finger scrolling* lets you drag to scroll quickly up, down, or sideways in the active window. This option is on by default.

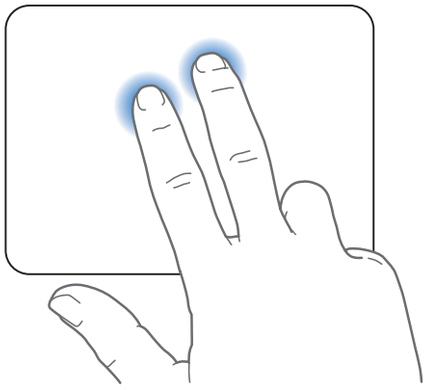


- *Secondary clicking* or *"right-clicking"* lets you access shortcut menu commands.
  - To set up a one-finger secondary-click zone in the bottom left or right corner of the trackpad, select Secondary Click under the One Finger option in Trackpad preferences.



Secondary click zone

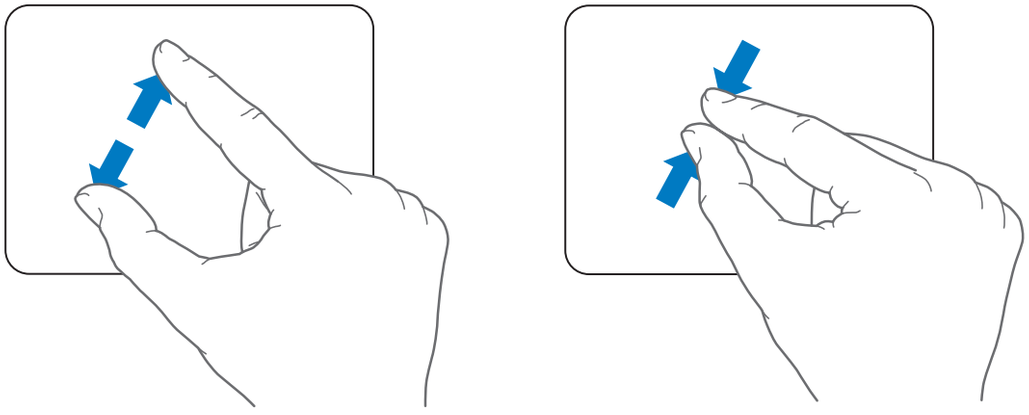
  - To set up two-finger secondary-clicking anywhere on the trackpad, select Secondary Click under the Two Fingers option in Trackpad preferences.



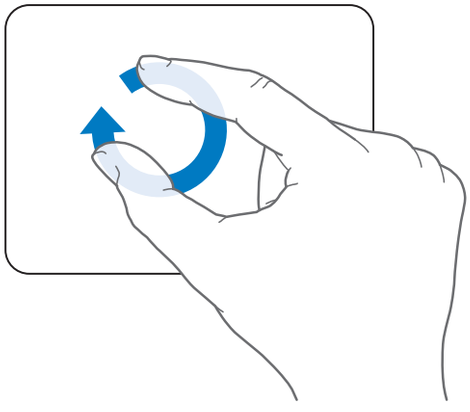
Note: You can also secondary click by holding down the Control key while you click.

The following trackpad gestures work in certain applications. When you perform these gestures, slide your fingers lightly on the surface of the trackpad. For more information, see Trackpad preferences or choose Help > Mac Help and search for "trackpad."

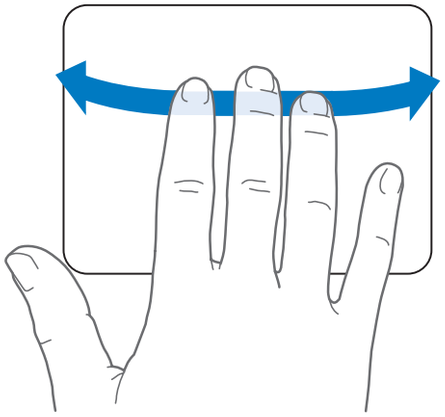
- *Two-finger pinching* lets you zoom in or out on PDFs, images, photos, and more.



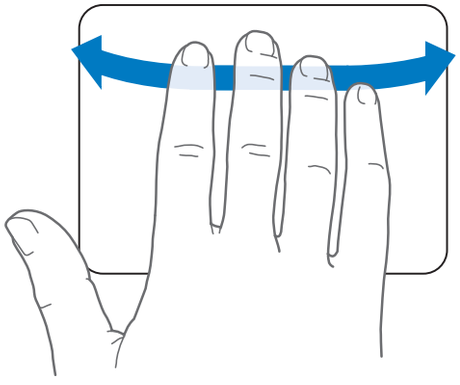
- *Two-finger rotating* lets you rotate photos, pages, and more.

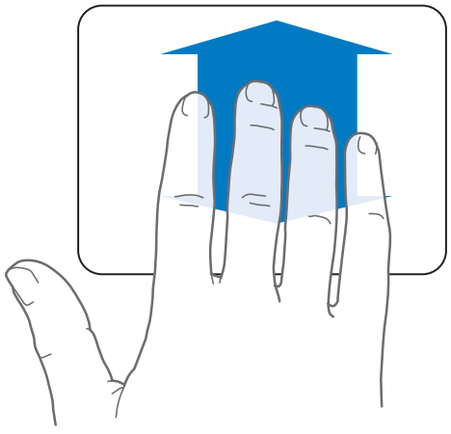


- *Three-finger swipe* lets you rapidly page through documents, move to the previous or next photo, and more.



- *Four-finger swipe* works in the Finder and all applications. Swiping four fingers to the left or right activates Application Switcher so you can cycle through open applications. Swiping four fingers up or down causes Exposé to show the desktop or display all open windows.





Using the MacBook Battery

When the MagSafe power adapter isn't connected, your MacBook draws power from its battery. The length of time that you can run your MacBook varies, depending on the applications you use and the external devices connected to your MacBook. Turning off features such as AirPort Extreme or Bluetooth® wireless technology and reducing screen brightness can help conserve battery charge, for example, when you're traveling by air. Many of your system preferences are automatically set to optimize battery life.

You can determine the charge remaining in the battery by looking at the eight battery level indicator lights on the left side of your MacBook. Press the button next to the lights, and the lights glow briefly to show how much charge remains in the battery.

Important: If only one indicator light is on, very little charge is left. If no lights illuminate, the battery is completely drained and the MacBook won't start up unless the power adapter is connected. Plug in the power adapter to let the battery recharge, or replace the drained battery with a fully charged battery (see page 34). For more information about battery indicator lights, see page 56.

You can also check the amount of battery charge remaining by viewing the Battery ( ) status icon in the menu bar. The battery charge level displayed is based on the amount of power left in the battery with the applications, peripheral devices, and system settings you are currently using. To conserve battery power, close applications and disconnect peripheral devices not in use, and adjust your Energy Saver settings. For more information about battery conservation and performance tips, go to www.apple.com/batteries/notebooks.html.

Charging the Battery

When the power adapter that came with your MacBook is connected, the battery recharges whether the computer is on, off, or in sleep. The battery recharges more quickly, however, when the computer is off or in sleep.

Getting Answers

Much more information about using your MacBook is available in Mac Help on your computer and on the Internet at www.apple.com/support/macbook.

To get Mac Help:

1 Click the Finder icon in the Dock (the bar of icons along the edge of the screen).

2 Click the Help menu in the menu bar and do one of the following:

a Type a question or term in the Search field, and select a topic from the list of results or select Show All Results to see all topics.

b Choose Mac Help to open the Mac Help window, where you can click links or type a search question.

More Information

For more information about using your MacBook, see the following:

To learn about	See
Installing memory	Chapter 3, "Boost Your MacBook," on page 33.
Troubleshooting your MacBook if you have a problem	Chapter 4, "Problem, Meet Solution," on page 51.
Finding service and support for your MacBook	"Learning More, Service, and Support" on page 63. Or see the Apple Support website at www.apple.com/support/macbook.
Using Mac OS X	The Mac OS X website at www.apple.com/macosx. Or search for "Mac OS X" in Mac Help.
Moving from a PC to a Mac	"How to move to Mac" at www.apple.com/getamac/movetomac.
Using iLife applications	The iLife website at www.apple.com/ilife. Or open an iLife application, open Help for the application, and then type a question in the search field.
Changing system preferences	System Preferences by choosing Apple () > System Preferences. Or search for "system preferences" in Mac Help.
Using the trackpad	Mac Help and search for "trackpad." Or open System Preferences and click Trackpad.
Using the keyboard	Mac Help and search for "keyboard."
Using the iSight camera	Mac Help and search for "iSight."
Using AirPort Extreme wireless technology	The AirPort Support page at www.apple.com/support/airport.

To learn about	See
Using Bluetooth wireless technology	The Bluetooth Support page at www.apple.com/support/bluetooth. Or open the Bluetooth File Exchange application, located in the Utilities folder within the Applications folder, and choose Help > Bluetooth Help.
Caring for the battery	Mac Help and search for "battery."
Connecting a printer	Mac Help and search for "printing."
USB connections	Mac Help and search for "USB."
Connecting to the Internet	Mac Help and search for "Internet."
Connecting an external display	Mac Help and search for "displayport."
Apple Remote	Mac Help and search for "remote."
Front Row	Mac Help and search for "Front Row."
Burning a CD or DVD	Mac Help and search for "burn disc."
Specifications	The Specifications page at www.apple.com/support/specs. Or open System Profiler by choosing Apple (apple) > About This Mac from the menu bar, and then click More Info.
Apple news, free downloads, and online catalogs of software and hardware	The Apple website at www.apple.com.
Instructions, technical support, and manuals for Apple products	The Apple Support website at www.apple.com/support.

3

Boost Your MacBook

www.apple.com/store

Mac Help RAM

This chapter provides information and instructions for replacing the battery, upgrading the hard disk drive, and installing additional memory in your MacBook.

WARNING: Apple recommends that you have an Apple-certified technician install replacement drives and memory. Consult the service and support information that came with your computer for information about how to contact Apple for service. If you attempt to install a replacement drive or memory and damage your equipment, such damage is not covered by the limited warranty on your computer.

Removing and Replacing the Battery

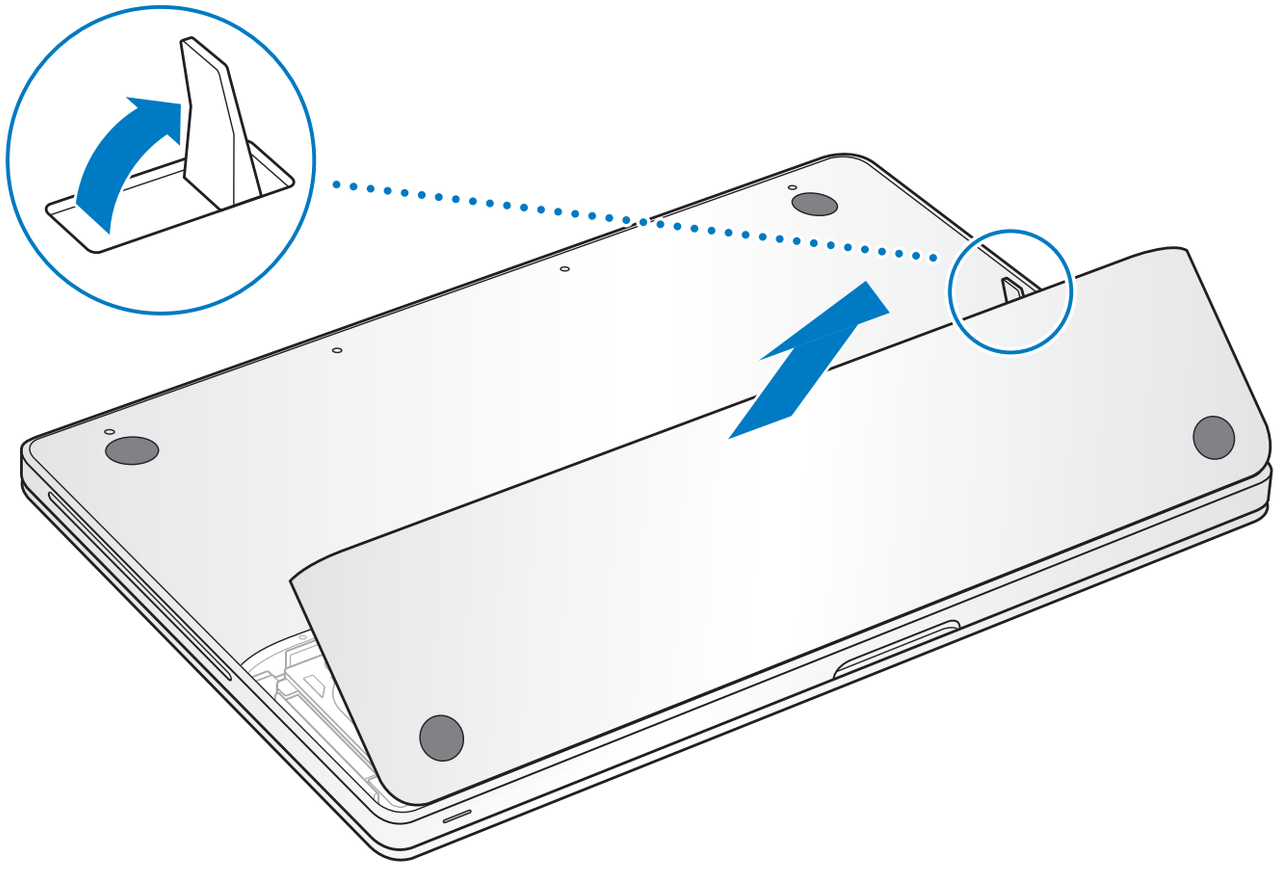
You can replace your battery if you need a new one. You also need to know how to remove the battery if you want to replace the hard disk drive or install memory.

To remove and replace the battery:

1 Shut down your MacBook. Disconnect the power adapter, Ethernet cable, security lock, and any other cords connected to the MacBook to prevent damaging the computer.

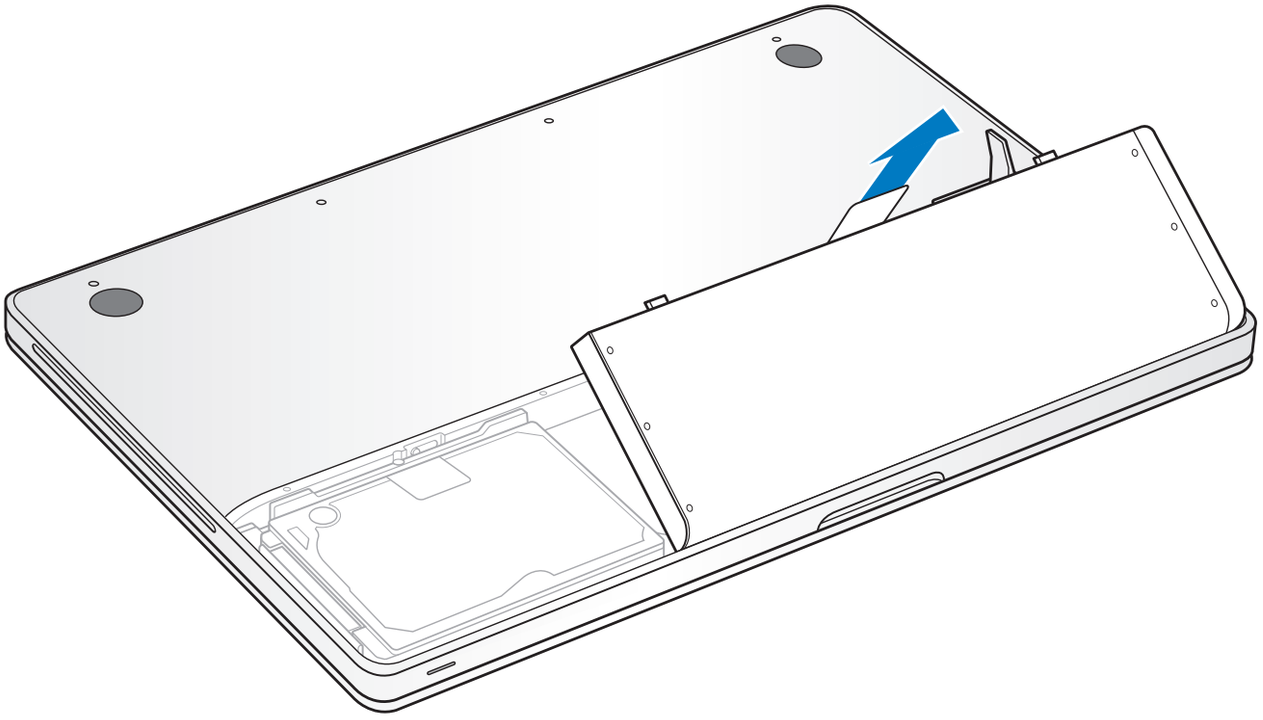
WARNING: The internal components of your MacBook can be warm. If you have been using your MacBook, wait 10 minutes after shutting down to let the internal components cool before continuing. Use care when handling the battery. See the battery safety information on page 70.

2 Turn over your MacBook and locate the latch. Push down to release the latch, and remove the access door that covers the battery and hard disk drive.



Note: The latch must be in its released, open position to remove and replace the battery and access door.

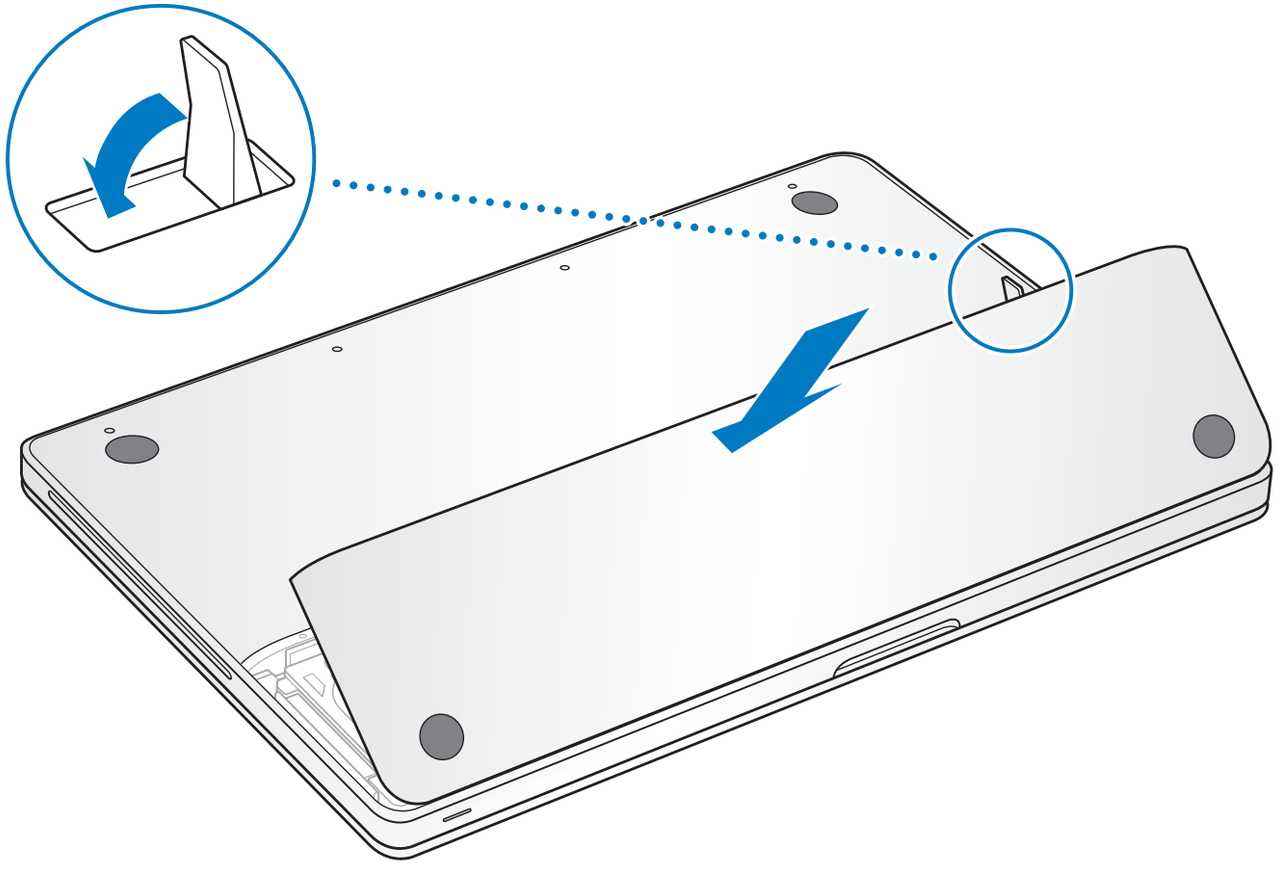
3 With the latch still in its open position, gently pull up on the battery tab to remove the battery.



You now have access to the serial number, the hard disk drive, and other components of your MacBook.

4 To replace the battery, make sure the latch is in its open position. Hold the battery at an angle and slide the lipped edge of the battery below the brackets on the outside edge of the battery bay. Gently press the battery down.

5 Replace the access door, making sure it is level with the bottom case of your MacBook, and press the latch into place. Reconnect the power adapter and any other cables that were attached.

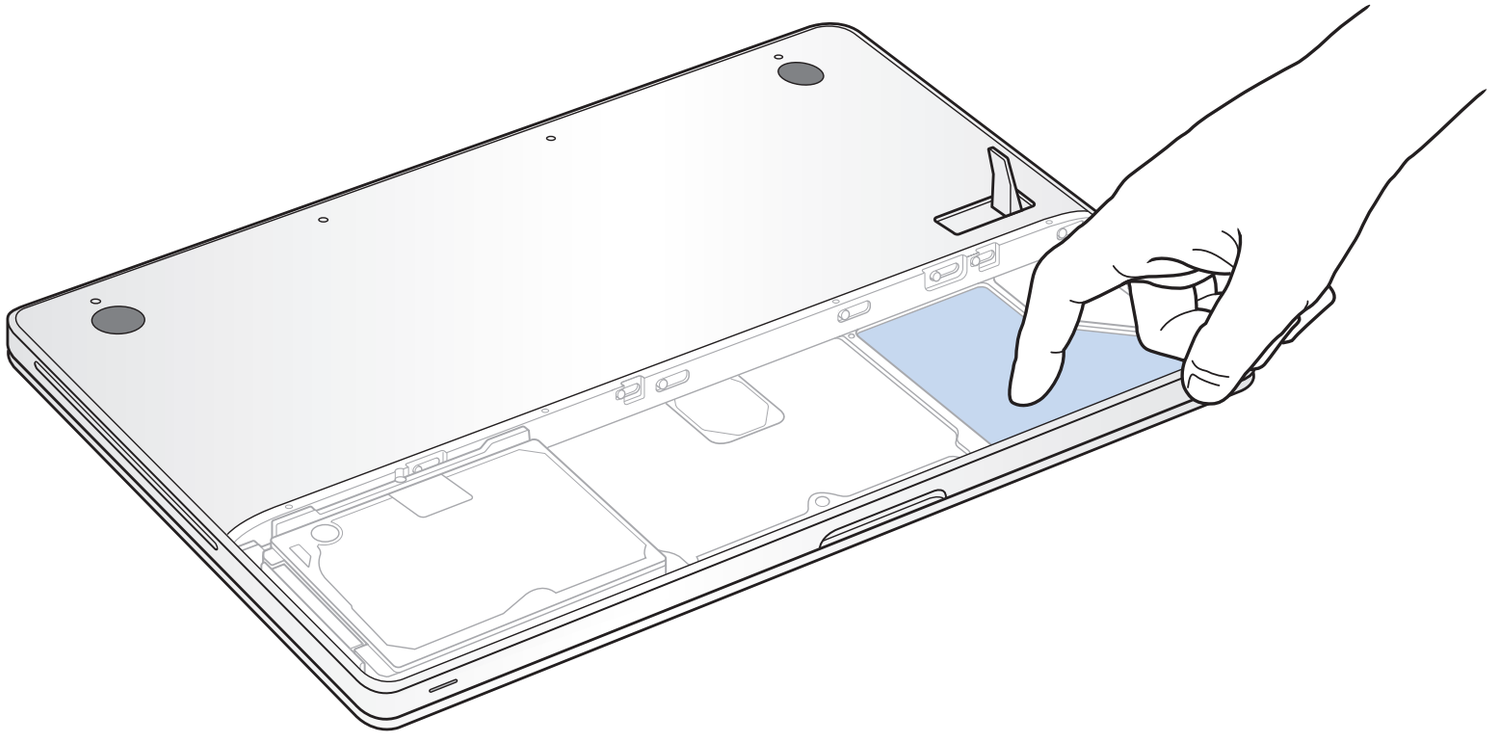


Replacing the Hard Disk Drive

You can upgrade the hard disk drive in your MacBook. The hard disk drive is located to the left of the battery when you open the back of your MacBook. The replacement drive must be a 2.5-inch drive with a Serial ATA (SATA) connector.

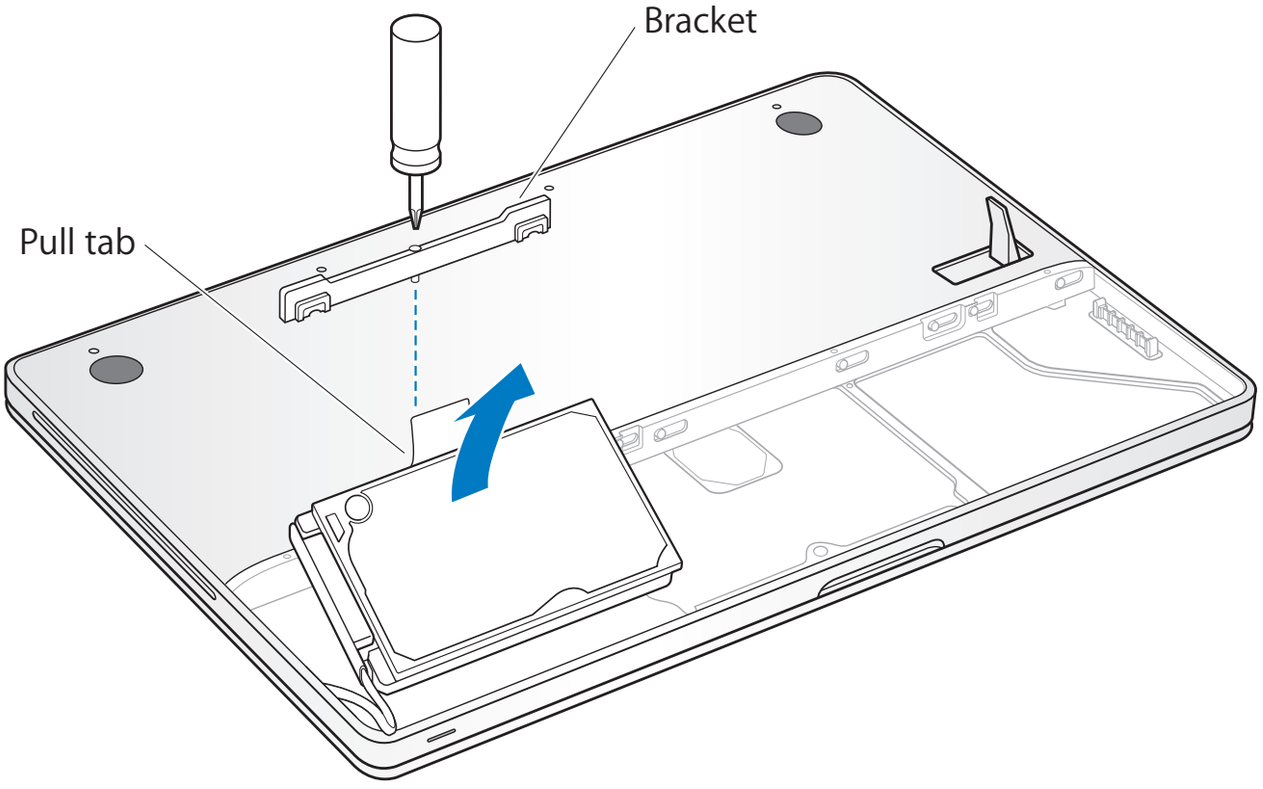
To replace the hard disk drive in your MacBook:

1. Follow the instructions for removing the battery on page 34.
2. Touch a metal surface inside the computer to discharge any static electricity from your body.



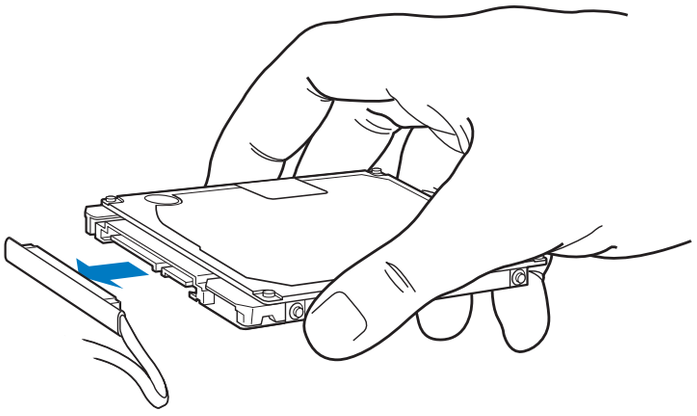
3 Locate the bracket at the top of the drive. Use a Phillips-head screwdriver to loosen the captive screw that holds the bracket in place.

4 Using the pull tab, gently lift the drive out of the bay.



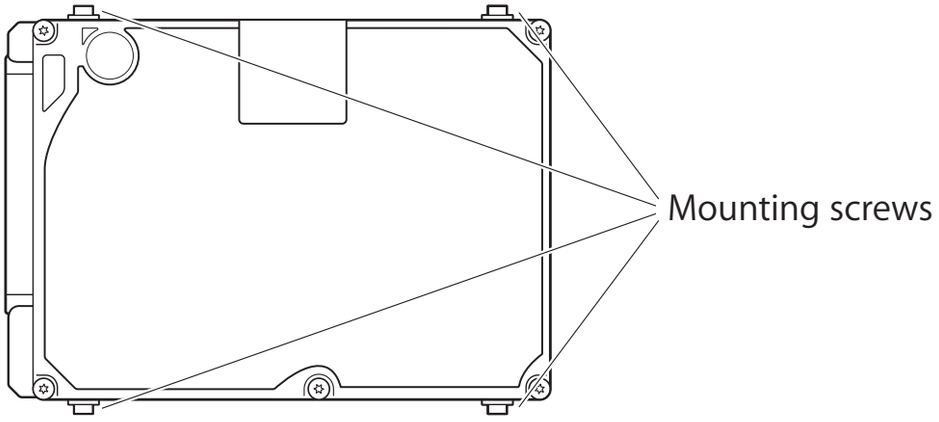
The bracket detaches from the drive. Put it aside in a safe place.

5 Hold the drive by its sides while you gently pull the connector on the left side of the drive to disconnect it.



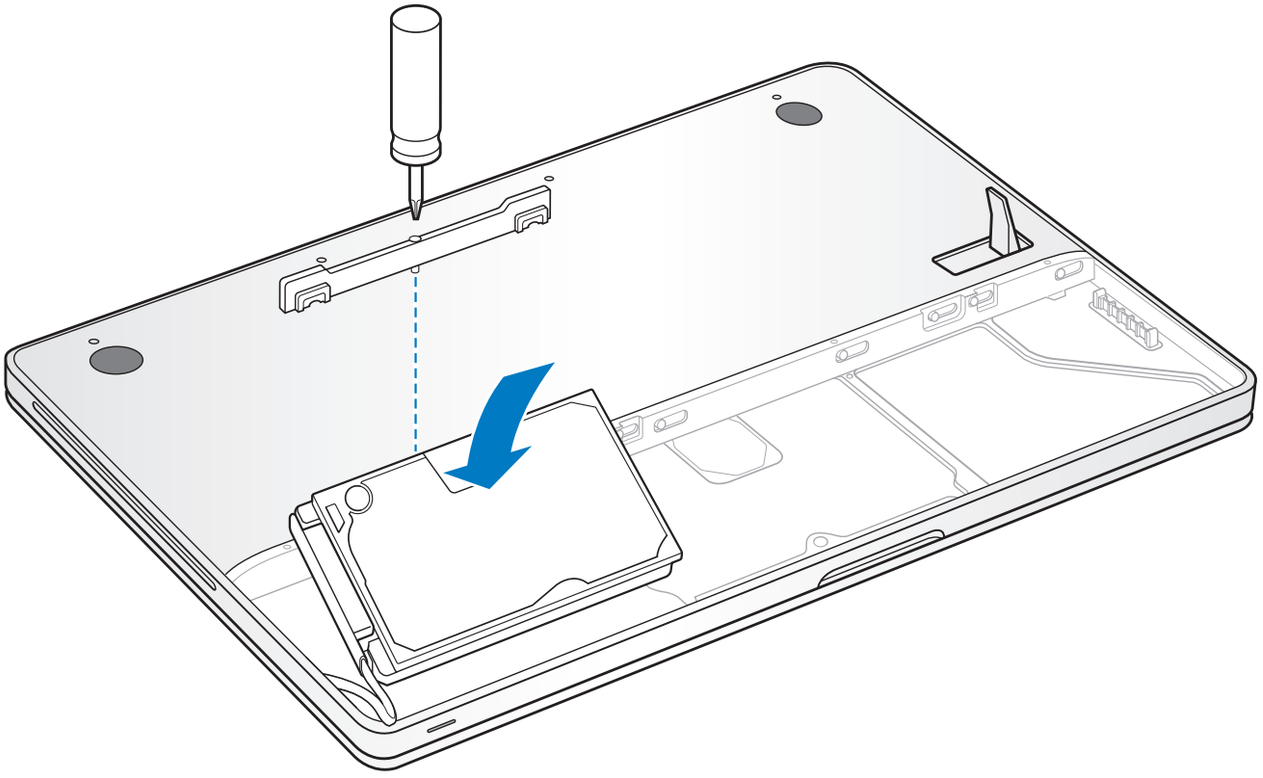
The connector is attached to a cable and remains in the hard disk drive bay.

Important: There are four (4) mounting screws on the sides of your hard disk drive. If your replacement drive doesn't include these mounting screws, remove the ones from your old drive and mount them on the replacement drive before you install it.



6 Attach the connector to the left side of the replacement drive.

7 Insert the replacement drive at an angle, making sure the mounting screws are seated properly.



8 Replace the bracket and tighten the screw.

9 Follow the instructions for replacing the battery on page 36.

For information about installing Mac OS X and bundled applications, see “Reinstalling the Software That Came with Your MacBook” on page 61.

Installing Additional Memory

Your computer has two memory slots that you access by removing the battery and bottom case. Your MacBook comes with a minimum of 2 gigabytes (GB) of 1066 MHz Double Data Rate (DDR3) Synchronous Dynamic Random-Access Memory (SDRAM) installed. Each memory slot can accept an SDRAM module that meets the following specifications:

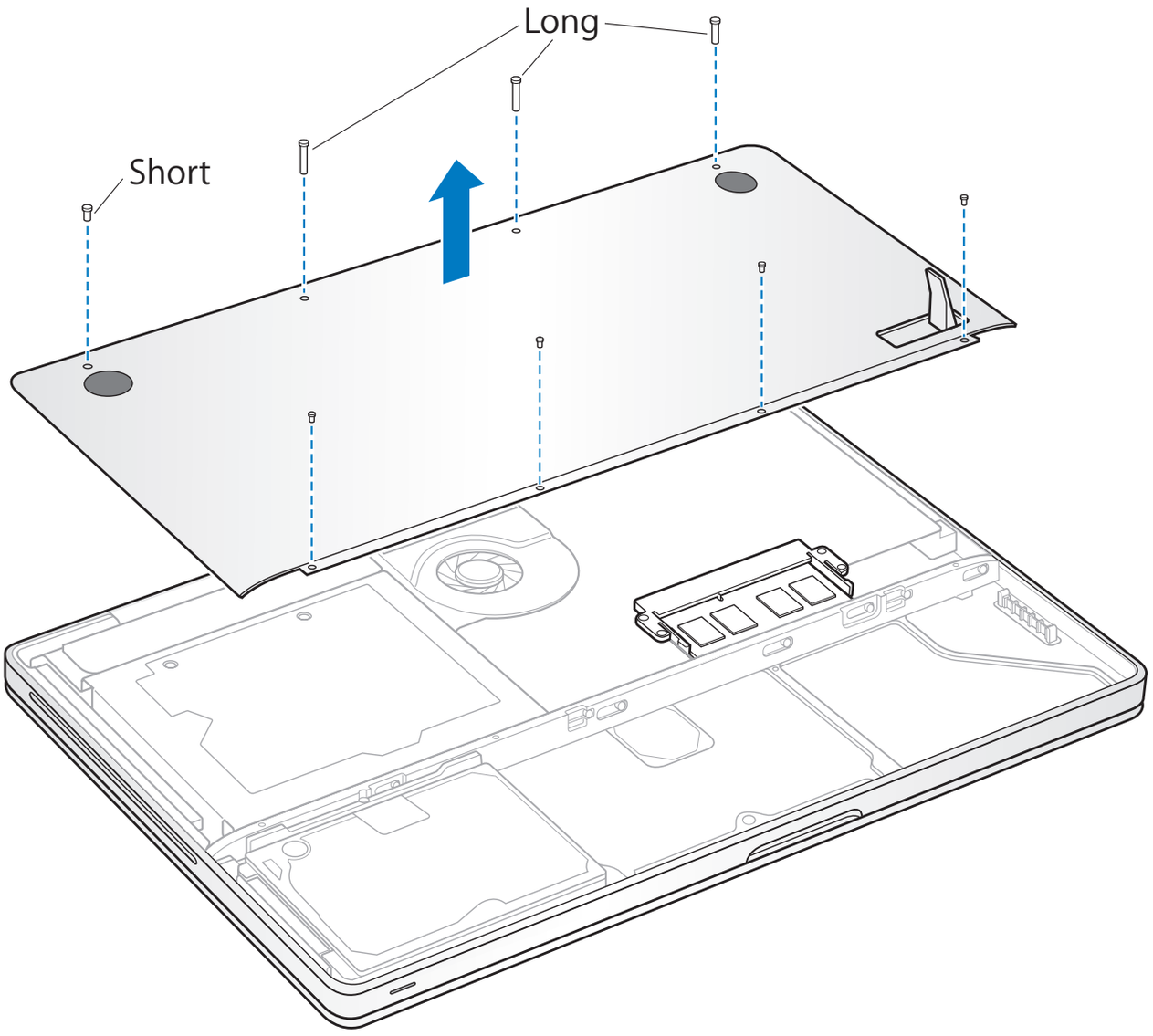
- Double Data Rate Small Outline Dual Inline Memory Module (DDR3) format
- 1.25 inch (3.18 cm)
- 1 GB or 2 GB
- 200-pin
- PC3-8500 DDR3 1066 MHz Type RAM

You can add two 2 GB memory modules for a maximum of 4 GB of memory. For best performance, fill both memory slots and install an identical memory module in each slot.

To install memory in your MacBook:

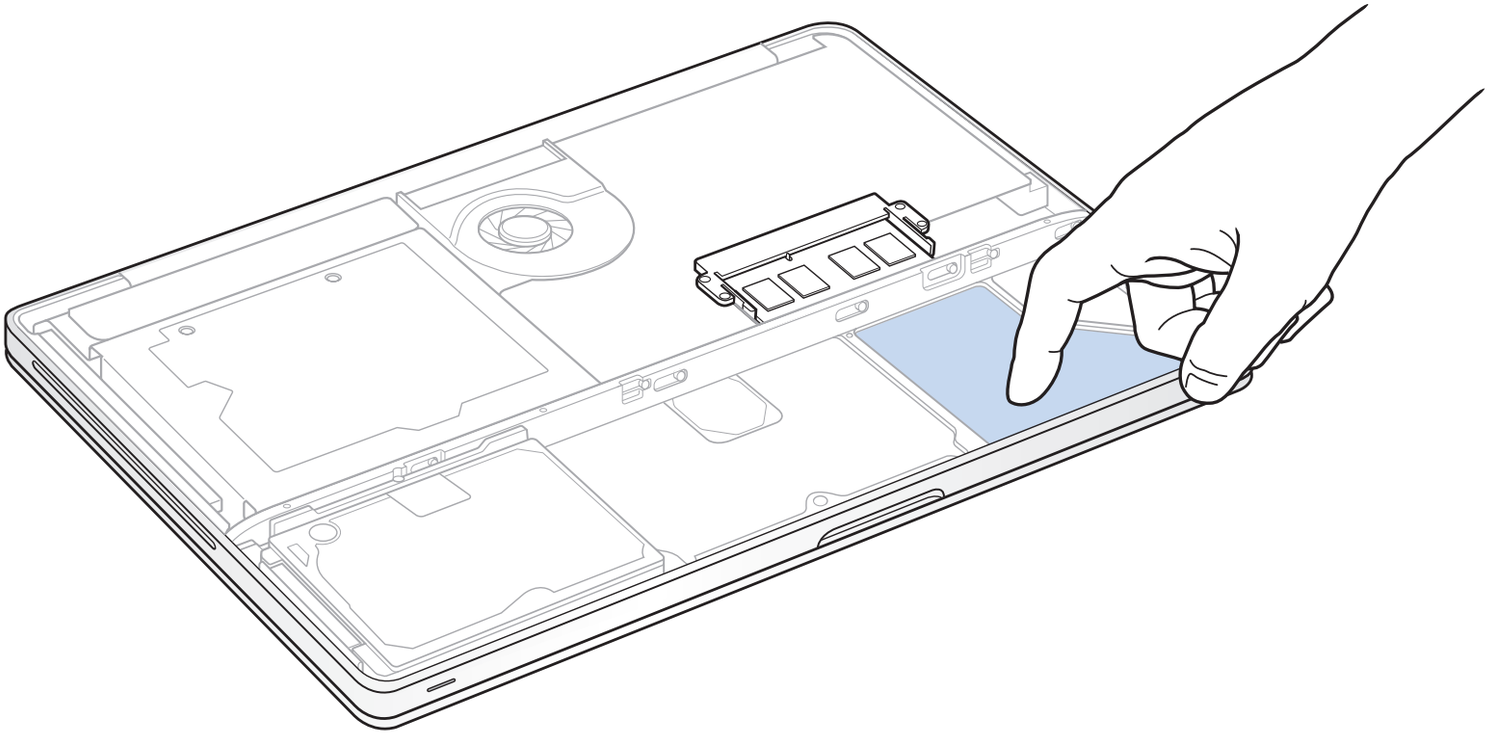
1. Follow the instructions for removing the battery on page 34.
2. Remove the eight (8) screws that secure the bottom case of your MacBook, and then remove the bottom case.

Important: Because the screws are different lengths, note the screw lengths and locations so you can replace the screws correctly. Put them aside in a safe place.



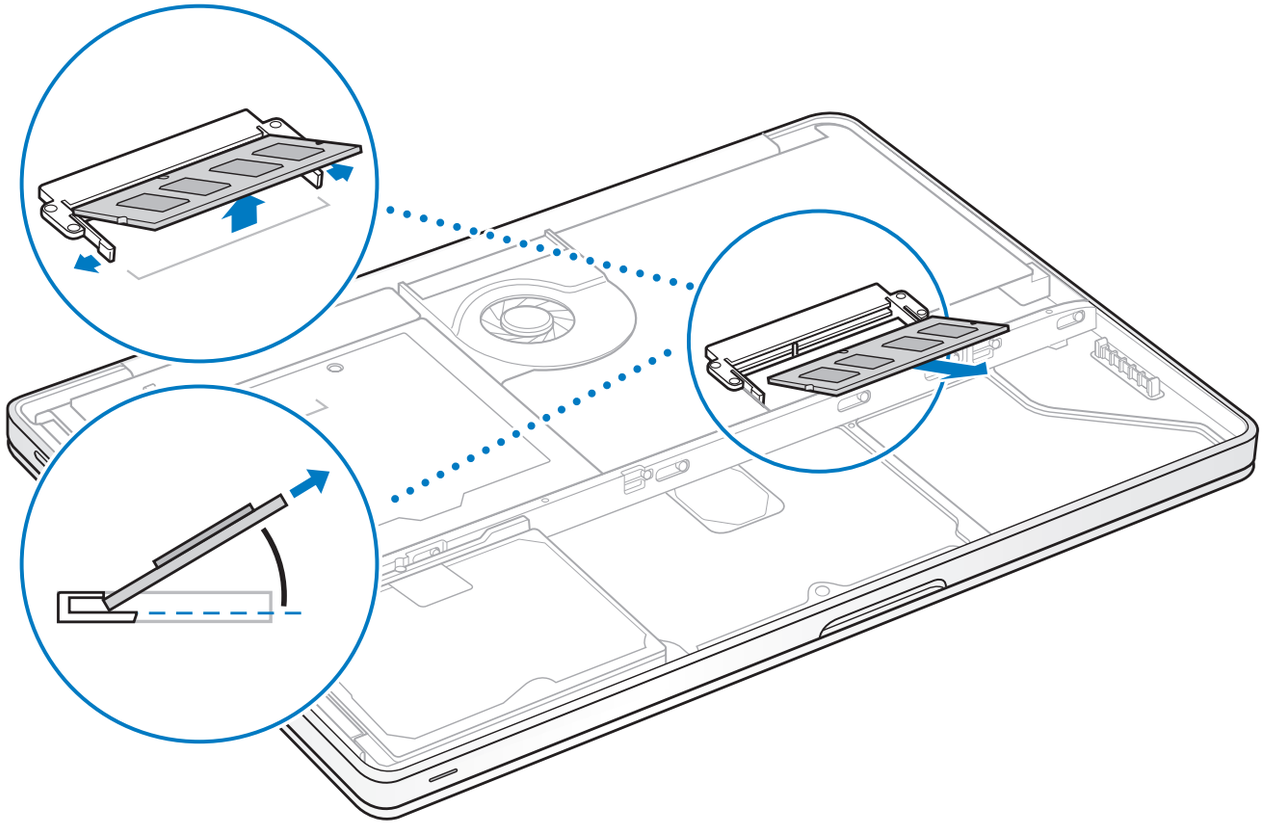
Important: When you remove the bottom case, you expose sensitive internal components. Avoid touching anything other than the memory assembly when you remove and replace memory.

3 Touch a metal surface inside the computer to discharge any static electricity from your body.



4 Push the ejection levers on the sides of the memory module in an outward direction to release the module from the memory card slot.

The memory pops up at an angle. Before removing it, make sure you see the half-circle notches. If you don't, try pressing the ejection levers outward again.



5 Hold the memory module by its notches and remove it from the slot.

6 Remove the other memory module.

Important: Hold the memory modules by their edges, and do not touch the gold connectors.

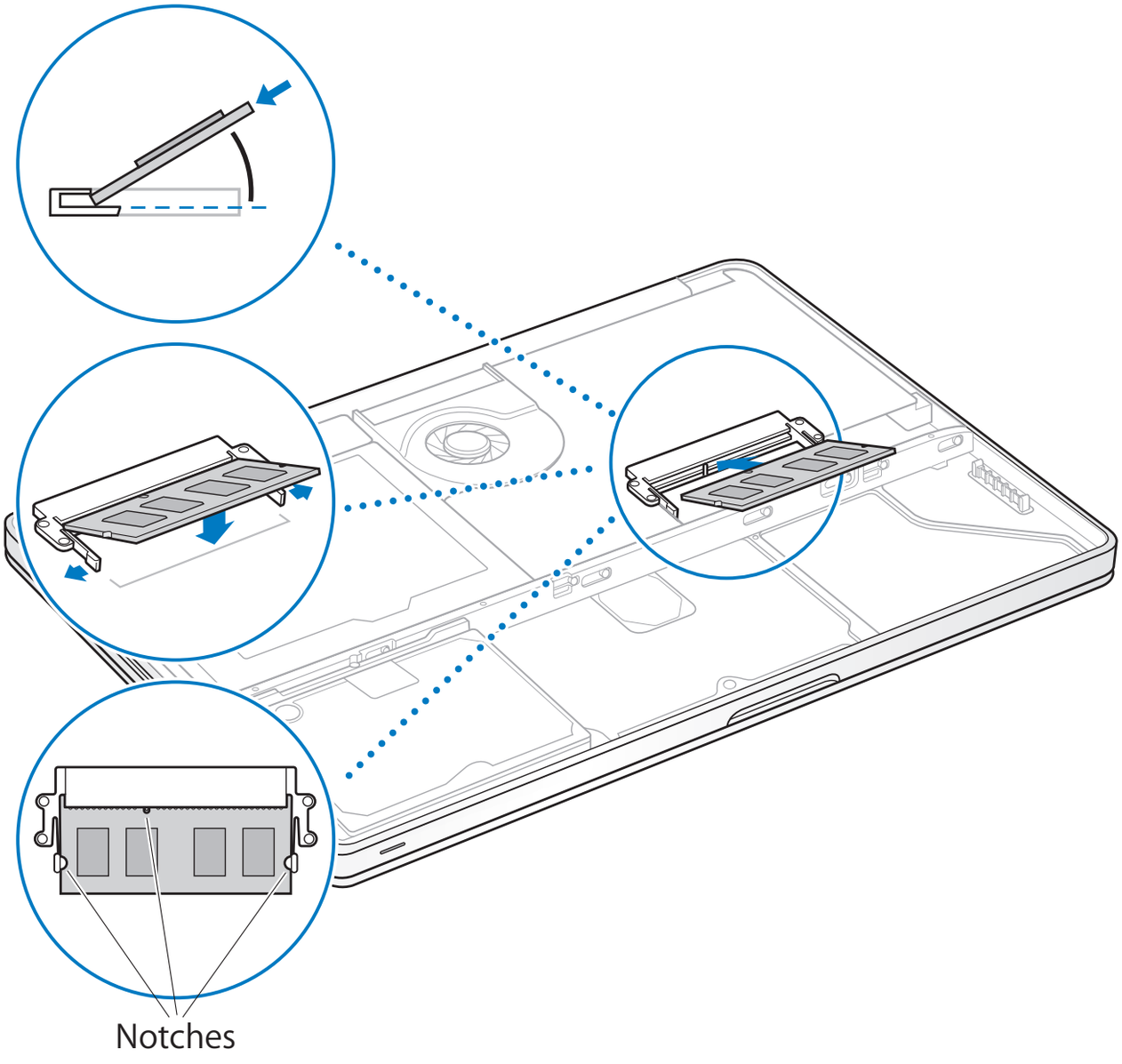
7 Insert the new memory module in the slot:

a Align the notch on the gold edge of the module with the notch in the lower memory slot.

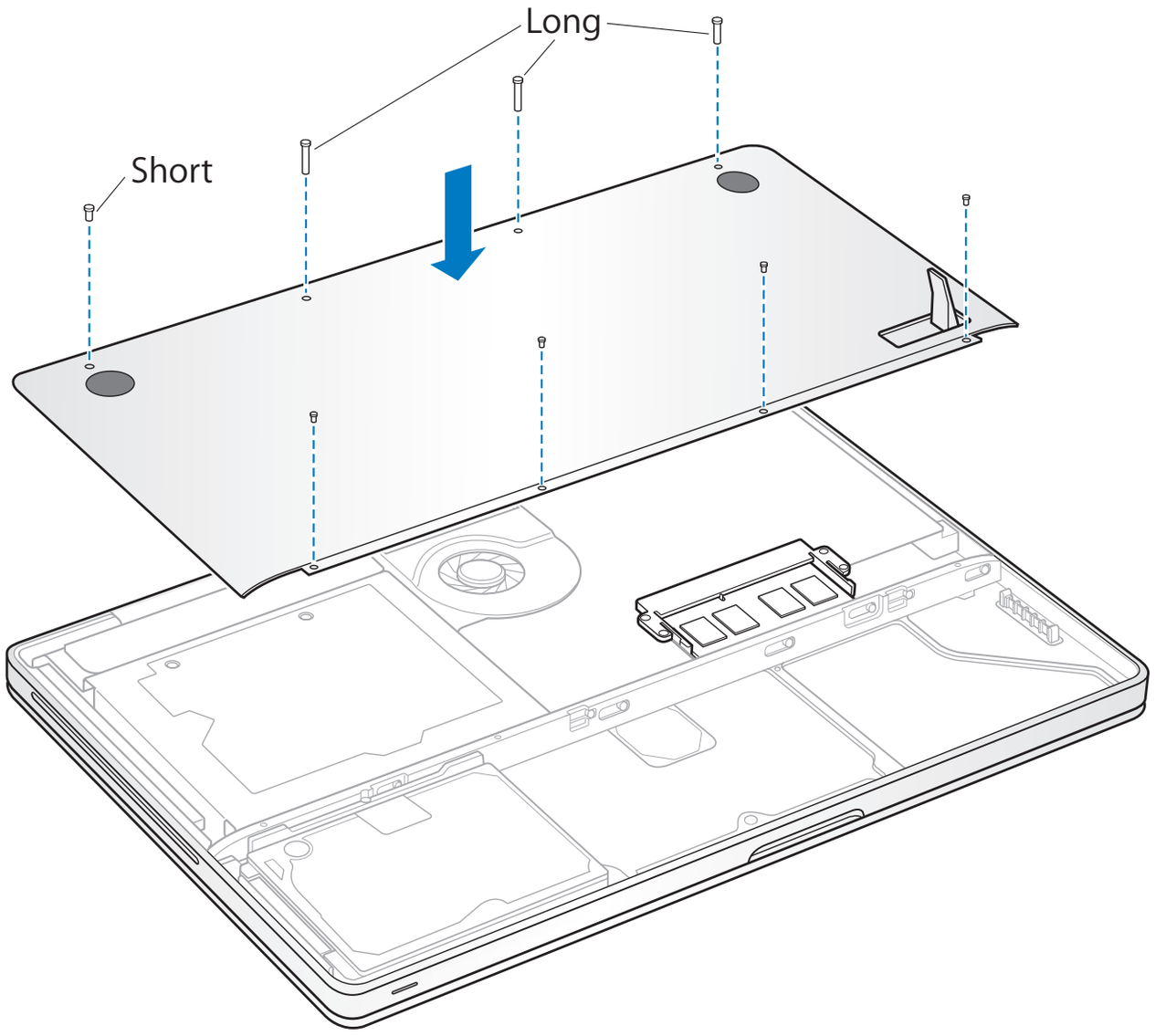
b Tilt the card and push the memory into the slot.

c Use two fingers with firm, even pressure to push down on the memory module. You should hear a click when the memory is inserted correctly.

d Repeat to install an additional memory module in the top slot. Press down on the module to make sure it is level.


Notches

8 Replace the bottom case. Replace and tighten the eight screws, making sure to put the different length screws in their proper locations.



9 Follow the instructions for replacing the battery on page 36.

Making Sure Your MacBook Recognizes the New Memory

After installing additional memory in your MacBook, check whether the computer recognizes the new memory.

To check the computer's memory:

1. Start up your MacBook.
2. When you see the Mac OS X desktop, choose Apple (apple) > About This Mac.

   For a detailed breakdown of the memory installed in your computer, open System Profiler by clicking More Info and then Memory.

   If your MacBook doesn't recognize the memory or doesn't start up correctly, confirm that the memory you installed is compatible with your MacBook and that it is installed correctly.

4

Problem, Meet Solution

www.apple.com/support

Mac Help help

Occasionally you may have problems while working with your MacBook. Read on for troubleshooting tips to try when you have a problem. You can also find more troubleshooting information in Mac Help and on the MacBook Support website at www.apple.com/support/macbook.

If you experience a problem with your MacBook, there is usually a simple and quick solution. Think about the conditions that led up to the problem. Making a note of things you did before the problem occurred will help you narrow down possible causes and find the answers you need. Things to note include:

- The applications you were using when the problem occurred. Problems that occur only with a specific application might indicate that the application is not compatible with the version of the Mac OS installed on your computer.
- Any new software that you installed, especially software that added items to the System folder.
- Any hardware that you installed, such as additional memory or a peripheral.

Problems That Prevent You from Using Your MacBook

If your MacBook doesn't respond or the pointer doesn't move

On rare occasions, an application might "freeze" on the screen. Mac OS X provides a way to quit a frozen application without restarting your computer.

To force an application to quit:

1 Press Command (⌘)-Option-Esc or choose Apple (🍎) > Force Quit from the menu bar.

The Force Quit Applications dialog appears with the application selected.

2 Click Force Quit.

The application quits, leaving all other applications open.

If you need to, you can also restart the Finder from this dialog.

Next, save your work in any open applications and restart the computer to make sure the problem is entirely cleared up.

If the problem occurs frequently, choose Help > Mac Help from the menu bar at the top of the screen. Search for the word "freeze" to get help for times when the computer freezes or doesn't respond.

If the problem occurs only when you use a particular application, check with the application's manufacturer to see if it is compatible with your computer. To get support and contact information for the software that came with your MacBook, go to www.apple.com/guide.

If you know an application is compatible, you might need to reinstall your computer's system software. See "Reinstalling the Software That Came with Your MacBook" on page 61.

If your MacBook freezes during startup, or you see a flashing question mark, or the screen is dark and the sleep indicator light is glowing steadily (not in sleep)
The flashing question mark usually means that the computer can't find the system software on the hard disk or any disks attached to the computer.

- Wait a few seconds. If the computer doesn't soon start up, shut it down by holding down the power (⏻) button for about 8 to 10 seconds. Disconnect all external peripherals and try restarting by pressing the power (⏻) button while holding down the Option key. When your computer starts up, click the hard disk icon, and then click the right arrow. After the computer starts up, open System Preferences and click Startup Disk. Select a local Mac OS X System folder.
- If that doesn't work, try using Disk Utility to repair the disk:
  - Insert the *Mac OS X Install DVD* into your computer.
  - Restart your computer and hold down the C key as it starts up.
  - Choose Installer > Open Disk Utility. When Disk Utility opens, follow the instructions in the First Aid pane to see if Disk Utility can repair the disk.

  If using Disk Utility doesn't help, you might need to reinstall your computer's system software. See "Reinstalling the Software That Came with Your MacBook" on page 61.

If your MacBook doesn't turn on or start up

Try the following suggestions in order until your computer turns on:

- Make sure the power adapter is plugged into the computer and into a functioning power outlet. Be sure to use the 60W MagSafe Power Adapter that came with your MacBook. If the power adapter stops charging and you don't see the indicator light on the power adapter turn on when you plug in the power cord, try unplugging and replugging the power cord to reseat it.
- Check whether the battery needs to be recharged. Press the small button on the left side of your computer. You should see one to eight lights indicating the battery's level of charge. If a single indicator light is on, connect your power adapter to recharge. For more information about battery indicator lights, see page 56.

- If the problem persists, return the computer to its factory settings by disconnecting the power adapter, removing the battery, and holding down the power (⏻) button for at least 5 seconds.
- If you recently installed additional memory, make sure that it is correctly installed and is compatible with your computer. See whether removing it and reinstalling the old memory allows the computer to start up (see page 42).
- Press the power (⏻) button and immediately hold down the Command (⌘), Option, P, and R keys simultaneously until you hear the startup sound a second time. This resets the parameter RAM (PRAM).
- If you still can't start up your MacBook, see "Learning More, Service, and Support" on page 63 for information about contacting Apple for service.

If the screen suddenly goes black or your MacBook freezes

Try restarting your MacBook.

1. Unplug any devices that are connected to your MacBook, except the power adapter.
2. Press the power (⏻) button to restart the system.
3. Let the battery charge to at least 10 percent before plugging in any external devices and resuming your work.

   To see how much the battery has charged, look at the Battery ( ) status icon in the menu bar.

   The screen might also darken if you have energy saver features set for the battery.

If you press the battery button, and all battery indicator lights flash five times quickly

Your battery needs to be replaced. Contact an Apple Retail Store or an Apple Authorized Service Provider (AASP).

If you press the battery button, and the battery indicator lights flash from left to right and then from right to left, five times in a row

Your battery is not recognized. Check that your battery is installed properly in your computer.

If you forget your password

You can reset your administrator password and passwords for all other accounts.

1. Insert the *Mac OS X Install DVD*. Then restart your computer and hold down the C key as it starts up.
2. Choose Utilities > Reset Password from the menu bar. Follow the onscreen instructions.

If you have trouble ejecting a disc

Quit any applications that might be using the disc and try again. If that doesn't work, restart the computer and then immediately press and hold the trackpad button.

Using Apple Hardware Test

If you suspect a problem with the MacBook hardware, you can use the Apple Hardware Test application to help determine if there is a problem with one of the computer's components, such as the memory or processor.

To use Apple Hardware Test:

1. Disconnect all external devices from your computer except the power adapter. If you have an Ethernet cable connected, disconnect it.
2. Restart your MacBook while holding down the D key.
3. When the Apple Hardware Test chooser screen appears, select the language you want to use.
4. Press the Return key or click the right arrow button.
5. When the Apple Hardware Test main screen appears (after about 45 seconds), follow the onscreen instructions.
6. If Apple Hardware Test detects a problem, it displays an error code. Make a note of the error code before pursuing support options. If Apple Hardware Test doesn't detect a hardware failure, the problem may be software related.

   If this procedure doesn't work, you can insert the *Applications Install DVD* to use Apple Hardware Test. For more information, see the Apple Hardware Test Read Me file on the *Applications Install DVD* that came with your computer.

Problems with Your Internet Connection

Your MacBook has the Network Setup Assistant application to help walk you through setting up an Internet connection. Open System Preferences and click Network. Click the "Assist me" button to open Network Setup Assistant.

If you have trouble with your Internet connection, you can try the steps in this section starting with Network Diagnostics.

To use Network Diagnostics:

1. Choose Apple (apple) > System Preferences.
2. Click Network and then click "Assist me."
3. Click Diagnostics to open Network Diagnostics.
4. Follow the onscreen instructions.

If Network Diagnostics can't resolve the problem, there may be a problem with the Internet service provider (ISP) you are trying to connect to, with an external device you are using to connect to your ISP, or with the server you are trying to access. You can try the following steps.

Cable Modem, DSL, and LAN Internet Connections

Make sure all modem cables are fully plugged in. Check the modem power cord, the cable from the modem to the computer, and the cable from the modem to the wall jack. Also check the cables and power supplies for Ethernet hubs and routers.

Turn the modem off and on to reset the modem hardware

Turn off your DSL or cable modem for a few minutes, and then turn it back on. Some ISPs recommend that you unplug the modem's power cord. If your modem has a reset button, you can press it either before or after you turn the power off and on.

Important: Instructions that refer to modems do not apply to LAN users. LAN users might have hubs, switches, routers, or connection pods that DSL and cable modem users do not have. LAN users should contact their network administrator rather than an ISP.

PPPoE Connections

If you are unable to connect to your Internet service provider using PPPoE (Point to Point Protocol over Ethernet), make sure you have entered the correct information in Network preferences.

To check PPPoE settings:

1. Choose Apple ( ) > System Preferences.
2. Click Network.
3. Click Add (+) at the bottom of the network connection services list, and choose PPPoE from the Interface pop-up menu.
4. Choose an interface for the PPPoE service from the Ethernet pop-up menu. Choose Ethernet if you are connecting to a wired network, or AirPort if you are connecting to a wireless network.
5. Enter the information you received from your service provider, such as the account name, password, and PPPoE service name (if your service provider requires it).
6. Click Apply to make the settings active.

Network Connections

Make sure the Ethernet cable is plugged into your MacBook and into the network. Check the cables and power supplies to your Ethernet hubs and routers.

If you have two or more computers sharing an Internet connection, be sure that your network is set up properly. You need to know if your ISP provides only one IP address or if it provides multiple IP addresses, one for each computer.

If only one IP address is provided, then you must have a router capable of sharing the connection, also known as network address translation (NAT) or "IP masquerading." For setup information, check the documentation provided with your router or ask the person who set up your network. You can use an AirPort Base Station to share one IP address among multiple computers. For information about using an AirPort Base Station, check Mac Help or go to the Apple AirPort website at www.apple.com/support/airport.

If you cannot resolve the issue using these steps, contact your ISP or network administrator.

Problems with AirPort Extreme Wireless Communication

If you have trouble using AirPort Extreme wireless communication:

- Make sure the computer or network you are trying to connect to is running and has a wireless access point.
- Make sure you have properly configured the software according to the instructions that came with your base station or access point.
- Make sure you are within antenna range of the other computer or the network's access point. Nearby electronic devices or metal structures can interfere with wireless communication and reduce this range. Repositioning or rotating the computer might improve reception.
- Check the AirPort (Wi-Fi) status icon in the menu bar. Up to four bars appear, indicating signal strength. If the signal strength is weak, try changing your location.

- See AirPort Help (choose Help > Mac Help, and then choose Library > AirPort Help from the menu bar). Also see the instructions that came with the wireless device for more information.

Keeping Your Software Up to Date

You can connect to the Internet and automatically download and install the latest free software versions, drivers, and other enhancements from Apple.

When you are connected to the Internet, Software Update checks to see if any updates are available for your computer. You can set your MacBook to check for updates periodically, and then you can download and install updated software.

To check for updated software:

1. Open System Preferences.
2. Click the Software Update icon and follow the onscreen instructions.
   - For more information, search for "Software Update" in Mac Help.
   - For the latest information about Mac OS X, go to www.apple.com/macosx.

Reinstalling the Software That Came with Your MacBook

You can use the software installation discs that came with your computer to reinstall Mac OS X and any applications that came with your computer. You can choose "Archive and Install," which saves your existing files and settings, or "Erase and Install," which erases all your data.

Important: Apple recommends that you back up the data on your hard disk before restoring software. Because the "Erase and Install" option erases your hard disk, you should back up your essential files before installing Mac OS X and other applications. Apple is not responsible for any lost data.

Installing Mac OS X

To install Mac OS X:

1. Back up your essential files.
2. Make sure your power adapter is connected and plugged in.
3. Insert the *Mac OS X Install DVD* that came with your computer.
4. Double-click Install Mac OS X.
5. Follow the onscreen instructions.

Note: To restore Mac OS X on your computer to the original factory settings, click Options in the "Select a Destination" pane of the Installer, and then select "Erase and Install." If you choose "Erase and Install," you'll see a message reminding you to use the *Applications Install DVD* to reinstall the bundled applications that came with your computer.

6. When the installation is complete, click Restart to restart your computer.
7. Follow the prompts in the Setup Assistant to set up your user account.

Installing Applications

If you reinstall Mac OS X on your computer and select the "Erase and Install" option, you must reinstall the applications that came with your computer, such as the iLife applications.

To install the applications that came with your computer:

1. Make sure your power adapter is connected and plugged in.
2. Insert the *Applications Install DVD* that came with your computer.
3. Double-click Install Bundled Software.
4. Follow the onscreen instructions.
5. When the installation is complete, click Close.

Learning More, Service, and Support

Your MacBook does not have any user-serviceable parts, except the hard drive and the memory. If you need service, contact Apple or take your MacBook to an Apple Authorized Service Provider. You can find more information about the MacBook through online resources, onscreen help, System Profiler, or Apple Hardware Test.

Online Resources

For online service and support information, go to www.apple.com/support. Choose your country from the pop-up menu. You can search the AppleCare Knowledge Base, check for software updates, or get help from Apple's discussion forums.

Onscreen Help

You can look for answers to your questions, as well as instructions and troubleshooting information, in Mac Help. Choose Help > Mac Help.

System Profiler

To get information about your MacBook, use System Profiler. It shows you what hardware and software is installed, the serial number and operating system version, how much memory is installed, and more. To open System Profiler, choose Apple (🍎) > About This Mac from the menu bar and then click More Info.

AppleCare Service and Support

Your MacBook comes with 90 days of technical support and one year of hardware repair warranty coverage at an Apple Store retail location or an Apple-authorized repair center, such as an Apple Authorized Service Provider (AASP). You can extend your coverage by purchasing the AppleCare Protection Plan. For information, go to www.apple.com/support/products or the website for your country listed below.

If you need assistance, AppleCare telephone support representatives can help you with installing and opening applications, and basic troubleshooting. Call the support center number nearest you (the first 90 days are complimentary). Have the purchase date and your MacBook serial number ready when you call.

Note: Your 90 days of complimentary telephone support begins on the date of purchase. Telephone fees may apply.

Country	Phone	Website
United States	1-800-275-2273	www.apple.com/support
Australia	(61) 1-300-321-456	www.apple.com/au/support
Canada (English) (French)	1-800-263-3394	www.apple.com/ca/support www.apple.com/ca/fr/support
Ireland	(353) 1850 946 191	www.apple.com/ie/support

Country	Phone	Website
New Zealand	00800-7666-7666	www.apple.com/nz/support
United Kingdom	(44) 0870 876 0753	www.apple.com/uk/support

Telephone numbers are subject to change, and local and national telephone rates may apply. A complete list is available on the web:

www.apple.com/contact/phone_contacts.html

Locating Your Product Serial Number

Use one of these methods to find your computer's serial number:

- Choose Apple (apple) > About This Mac, and then click the version number beneath the words "Mac OS X" to cycle through the Mac OS X version number, the build version, and the serial number.
- Open System Profiler (in /Applications/Utilities/) and click Hardware.
- Remove the battery and view the serial number for your MacBook on the front wall of the battery bay. For information about removing the battery, see page 34.

5

Last, but Not Least

www.apple.com/environment

Mac Help ergonomics

For your safety and that of your equipment, follow these rules for handling and cleaning your MacBook and for working more comfortably. Keep these instructions handy for reference by you and others.

Important Safety Information

WARNING: Failure to follow these safety instructions could result in fire, electric shock, or other injury or damage.

Proper handling Set up your MacBook on a stable work surface that allows for adequate air circulation under and around the computer. Do not operate your MacBook on a pillow or other soft material, as the material can block the airflow vents. Never place anything over the keyboard when operating your MacBook. Never push objects into the ventilation openings.

The bottom of your MacBook may become very warm during normal use. If your MacBook is on your lap and gets uncomfortably warm, remove it from your lap and place it on a stable work surface.

Water and wet locations Keep your MacBook away from sources of liquid, such as drinks, washbasins, bathtubs, shower stalls, and so on. Protect your MacBook from dampness or wet weather, such as rain, snow, and fog.

60W MagSafe Power Adapter Make sure the AC plug or AC power cord is fully inserted into the power adapter before plugging the adapter into a power outlet. Use only the power adapter that came with your MacBook, or an Apple-authorized power adapter that is compatible with this product. The power adapter may become very warm during normal use. Always put the power adapter directly into a power outlet, or place it on the floor in a well-ventilated location.

Disconnect the power adapter, remove the battery, and disconnect any other cables if any of the following conditions exists:

- You want to add memory or upgrade the hard disk drive.
- You want to clean the case (use only the recommended procedure described on page 72).
- The power cord or plug becomes frayed or otherwise damaged.
- Your MacBook or power adapter is exposed to rain, excessive moisture, or liquid spilled into the case.
- Your MacBook or power adapter has been dropped, the case has been damaged, or you suspect that service or repair is required.

The MagSafe power port contains a magnet that can erase data on a credit card, iPod, or other device. To preserve your data, do not place these or other magnetically sensitive material or devices within 1 inch (25 mm) of this port.

If debris gets into the MagSafe power port, remove it gently with a dry cotton swab.

Battery Do not disassemble, drop, crush, or expose the battery to fire or temperatures above 212° F (100° C). Stop using the battery if it appears damaged in any way. Replace the battery only with an Apple-authorized battery for this product. Dispose of used batteries promptly according to your local environmental guidelines.

Hearing damage Permanent hearing loss may occur if earbuds or headphones are used at high volume. You can adapt over time to a higher volume of sound that may sound normal but can be damaging to your hearing. If you experience ringing in your ears or muffled speech, stop listening and have your hearing checked. The louder the volume, the less time is required before your hearing could be affected. Hearing experts suggest that to protect your hearing:

- Limit the amount of time you use earbuds or headphones at high volume.
- Avoid turning up the volume to block out noisy surroundings.
- Turn the volume down if you can't hear people speaking near you.

High-risk activities This computer is not intended for use in the operation of nuclear facilities, aircraft navigation or communications systems, air traffic control systems, or for any other uses where the failure of the computer could lead to death, personal injury, or severe environmental damage.

Laser Information for Optical Disc Drives

WARNING: Making adjustments or performing procedures other than those specified in your equipment's manual may result in hazardous radiation exposure.

The optical disc drive in your computer contains a laser that is safe in normal use but that may be harmful to your eyes if disassembled. For your safety, have this equipment serviced only by an Apple Authorized Service Provider.

Important Handling Information

NOTICE: Failure to follow these handling instructions could result in damage to your MacBook or other property.

Turning on your MacBook Never turn on your MacBook unless all of its internal and external parts are in place. Operating the computer when parts are missing may be dangerous and may damage your computer.

Carrying your MacBook If you carry your MacBook in a bag or briefcase, make sure that there are no loose items (such as paper clips or coins) that could accidentally get inside the computer through vent openings or the optical drive slot or get stuck inside a port. Also, keep magnetically sensitive items away from the MagSafe power port.

Using connectors and ports Never force a connector into a port. When connecting a device, make sure the port is free of debris, that the connector matches the port, and that you have positioned the connector correctly in relation to the port.

Using the optical drive The optical drive in your MacBook supports standard 12 cm (4.7 inch) discs. Irregularly shaped discs or discs smaller than 12 cm (4.7 inches) are not supported and can become lodged in the drive.

Handling glass parts Your MacBook contains glass components, including the display and trackpad. If they are damaged, don't use your MacBook until it has been repaired by an Apple Authorized Service Provider.

Storing your MacBook If you are going to store your MacBook for an extended period of time, keep it in a cool location (ideally, 71° F or 22° C) and discharge the battery to 50 percent. When storing your computer for longer than five months, discharge the battery to approximately 50 percent and then remove it from your MacBook. To maintain the capacity of the battery, recharge the battery to 50 percent every six months or so.

Cleaning your MacBook When cleaning the outside of your MacBook and its components, first shut down your MacBook, unplug the power adapter, and remove the battery. Then use a damp, soft, lint-free cloth to clean the computer's exterior. Avoid getting moisture in any openings. Do not spray liquid directly on the computer. Do not use aerosol sprays, solvents, or abrasives that might damage the finish.

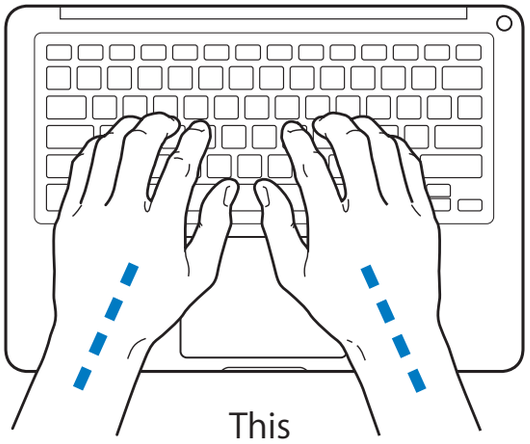
Cleaning the MacBook screen To clean the MacBook screen, first shut down your MacBook, unplug the power adapter, and remove the battery. Then use the included cleaning cloth to wipe the screen. Dampen the cloth with water if necessary. Do not spray liquid directly on the screen.

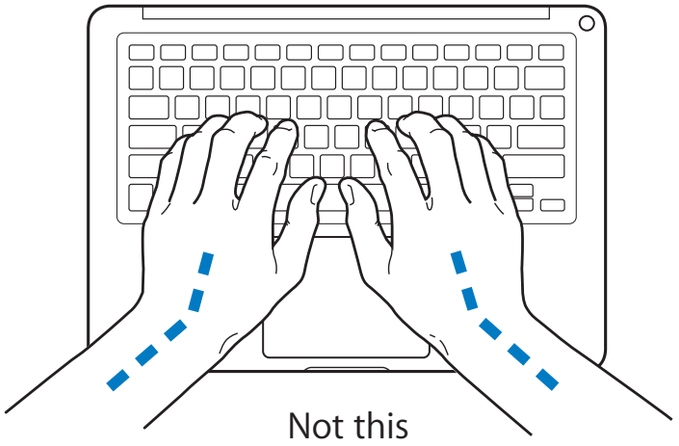
Understanding Ergonomics

Here are some tips for setting up a healthy work environment.

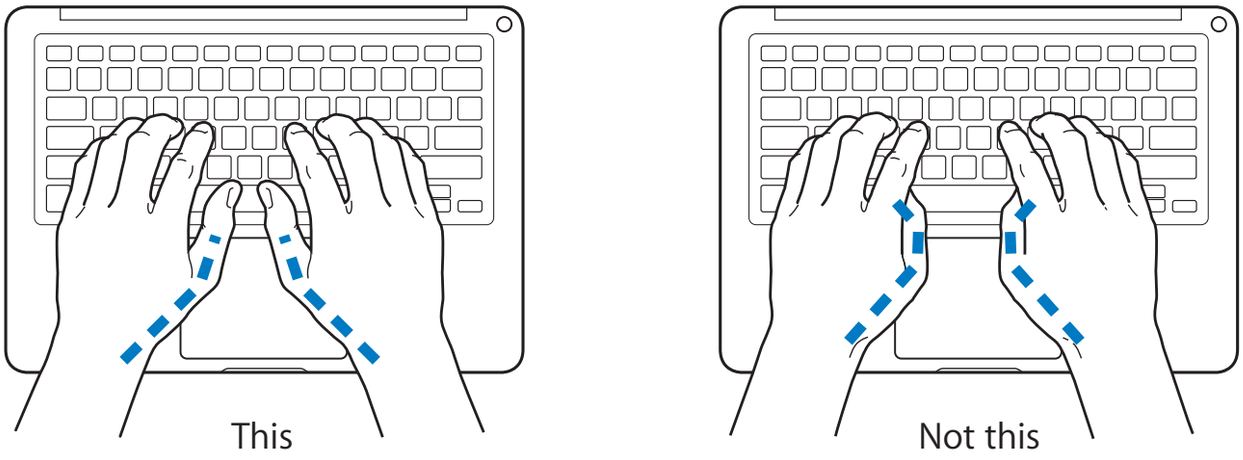
Keyboard and Trackpad

When you use the keyboard and trackpad, your shoulders should be relaxed. Your upper arm and forearm should form an angle that is slightly greater than a right angle, with your wrist and hand in roughly a straight line.





Use a light touch when typing or using the trackpad and keep your hands and fingers relaxed. Avoid rolling your thumbs under your palms.



Change hand positions often to avoid fatigue. Some computer users might develop discomfort in their hands, wrists, or arms after intensive work without breaks. If you begin to develop chronic pain or discomfort in your hands, wrists, or arms, consult a qualified health specialist.

External Mouse

If you use an external mouse, position the mouse at the same height as the keyboard and within comfortable reach.

Chair

An adjustable chair that provides firm, comfortable support is best. Adjust the height of the chair so your thighs are horizontal and your feet are flat on the floor. The back of the chair should support your lower back (lumbar region). Follow the manufacturer's instructions for adjusting the backrest to fit your body properly.

You might have to raise your chair so that your forearms and hands are at the proper angle to the keyboard. If this makes it impossible to rest your feet flat on the floor, you can use a footrest with adjustable height and tilt to make up for any gap between the floor and your feet. Or you can lower the desktop to eliminate the need for a footrest. Another option is to use a desk with a keyboard tray that's lower than the regular work surface.

Built-in Display

Adjust the angle of the display to minimize glare and reflections from overhead lights and windows. Do not force the display if you meet resistance. The display is not meant to open past 130 degrees.

You can adjust the brightness of the screen when you take the computer from one work location to another, or if the lighting in your work area changes.

More information about ergonomics is available on the web:

www.apple.com/about/ergonomics

Apple and the Environment

Apple Inc. recognizes its responsibility to minimize the environmental impacts of its operations and products.

More information is available on the web:

www.apple.com/environment

Regulatory Compliance Information

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. See instructions if interference to radio or television reception is suspected.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Radio and Television Interference

This computer equipment generates, uses, and can radiate radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with Apple's instructions—it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether your computer system is causing interference by turning it off. If the interference stops, it was probably caused by the computer or one of the peripheral devices.

If your computer system does cause interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the computer to one side or the other of the television or radio.
- Move the computer farther away from the television or radio.
- Plug the computer in to an outlet that is on a different circuit from the television or radio. (That is, make certain the computer and the television or radio are on circuits controlled by different circuit breakers or fuses.)

If necessary, consult an Apple Authorized Service Provider or Apple. See the service and support information that came with your Apple product. Or, consult an experienced radio/television technician for additional suggestions.

Important: Changes or modifications to this product not authorized by Apple Inc., could void the EMC compliance and negate your authority to operate the product.

This product has demonstrated EMC compliance under conditions that included the use of compliant peripheral devices and shielded cables (including Ethernet network cables) between system components. It is important that you use compliant peripheral devices and shielded cables between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices.

Responsible party (contact for FCC matters only):
Apple Inc. Corporate Compliance
1 Infinite Loop, M/S 26-A
Cupertino, CA 95014-2084

Wireless Radio Use

This device is restricted to indoor use when operating in the 5.15 to 5.25 GHz frequency band.

Cet appareil doit être utilisé à l'intérieur.

Exposure to Radio Frequency Energy

The radiated output power of the AirPort Extreme technology is below the FCC radio frequency exposure limits. Nevertheless, it is advised to use the wireless equipment in such a manner that the potential for human contact during normal operation is minimized.

FCC Bluetooth Wireless Compliance

The antenna used with this transmitter must not be colocated or operated in conjunction with any other antenna or transmitter subject to the conditions of the FCC Grant.

Bluetooth Industry Canada Statement

This Class B device meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Industry Canada Statement

Complies with the Canadian ICES-003 Class B specifications. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. This device complies with RSS 210 of Industry Canada.

Bluetooth Europe—EU Declaration of Conformity

This wireless device complies with the R&TTE Directive.

Europe—EU Declaration of Conformity

The equipment complies with the RF Exposure Requirement 1999/519/EC, Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).

Hereby, Apple Inc. declares that this 802.11a/b/g/n Mini-PCIe card is in compliance with the R&TTE Directive.

Complies with European Low Voltage and EMC Directives.
See: www.apple.com/euro/compliance

Korea Warning Statements

"당해 무선설비는 운용 중 전파혼신 가능성이 있음"
"이 기기는 인명안전과 관련된 서비스에 사용할 수 없습니다"

B급 기기(가정용 방송통신기기)

이 기기는 가정용(B급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Singapore Wireless Certification

Complies with
IDA Standards
DB00063

Taiwan Wireless Statements

無線設備的警告聲明

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

如有這 頻率:

於 5.25GHz 至 5.35GHz 區域內操作之
無線設備的警告聲明

工作頻率 5.250 ～ 5.350GHz 該頻段限於室內使用。

Taiwan Class B Statement

Class B 設備的警告聲明
NIL

VCCI Class B Statement

情報処理装置等電波障害自主規制について

この装置は、情報処理装置等電波障害自主規制協議会 (VCCI) の基準に基づくクラス B 情報技術装置です。この装置は家庭環境で使用されることを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取扱をしてください。

Russia

ME67

External USB Modem Information

When connecting your MacBook to the phone line using an external USB modem, refer to the telecommunications agency information in the documentation that came with your modem.

ENERGY STAR® Compliance

As an ENERGY STAR® partner, Apple has determined that standard configurations of this product meet the ENERGY STAR® guidelines for energy efficiency. The ENERGY STAR® program is a partnership with electronic equipment manufacturers to promote energy-efficient products. Reducing energy consumption of products saves money and helps conserve valuable resources.

This computer is shipped with power management enabled with the computer set to sleep after 10 minutes of user inactivity. To wake your computer, click the mouse or trackpad button or press any key on the keyboard.

For more information about ENERGY STAR®, visit: www.energystar.gov

中国

有毒或有害物质	零部件				
	电路板	显示屏	电池组	附件	电源适配器
铅 (Pb)	X	X	X	X	X
汞 (Hg)	O	O	O	O	O
镉 (Cd)	O	O	O	O	O
六价铬 (Cr, VI)	O	O	O	O	O
多溴联苯 (PBB)	O	O	O	O	O
多溴二苯醚 (PBDE)	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 规定的限量要求。

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Disposal and Recycling Information

This symbol indicates that your product must be disposed of properly according to local laws and regulations. When your product reaches its end of life, contact Apple or your local authorities to learn about recycling options.

For information about Apple's recycling program, go to www.apple.com/environment/recycling.

Battery Disposal Information
Dispose of batteries according to your local environmental laws and guidelines.

California: The coin cell battery in the optional Apple Remote contains perchlorates. Special handling and disposal may apply. Refer to: www.dtsc.ca.gov/hazardouswaste/perchlorate

Deutschland: Das Gerät enthält Batterien. Diese gehören nicht in den Hausmüll. Sie können verbrauchte Batterien beim Handel oder bei den Kommunen unentgeltlich abgeben. Um Kurzschlüsse zu vermeiden, kleben Sie die Pole der Batterien vorsorglich mit einem Klebestreifen ab.

Nederlands: Gebruikte batterijen kunnen worden ingeleverd bij de chemokar of in een speciale batterijcontainer voor klein chemisch afval (kca) worden gedeponeerd.

Taiwan:

廢電池請回收

European Union—Disposal Information:

The symbol above means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

Looking for Something?

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